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SEPTEMBER Highlights

28
Summer NAMM
Temps were unseasonably cool in Nashville, but the new-gear scene was hot as ever.

53
Unsung Pickups
Six unique pickup models that have never quite gotten their due.

67
Forgotten Heroes
Emily Remler, a nice New Jersey girl, changed jazz forever.

76
Slash
On the humanity of music, improvising off of himself, and being pushed in the studio.

107
Must-Try Wiring Mods
These DIY mods just may change the way you play.

REVIEWS: Danelectro 59 M-NOS • Yonac ToneStack • Cort Jeff Berlin Rithimic Bass • EarthQuaker Devices Terminal • Maton SRS 70 • Beigel Sound Lab/Mu-FX Tru-Tron 3X • Universal Audio Apollo Twin • DigiTech Bass Whammy • Bradford Sterling • Stomp Under Foot Hellephant Novax 25th Anniversary Sweet Annie • Visual Sound V3 H2O • Peerless Retromatic B2 Bass

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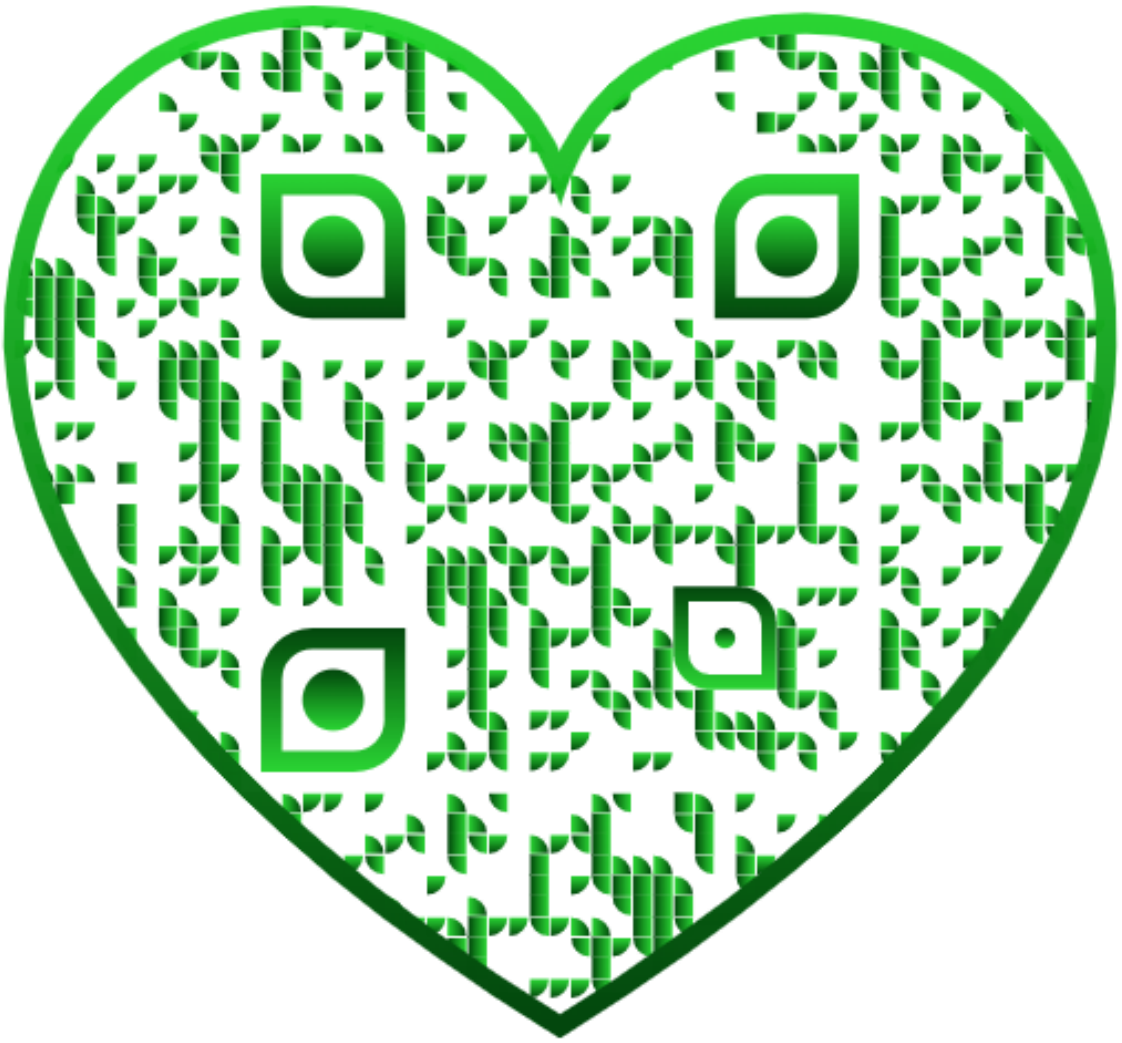

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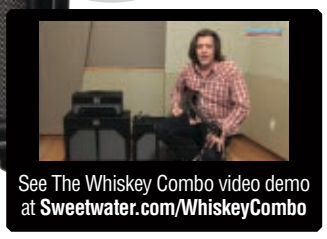

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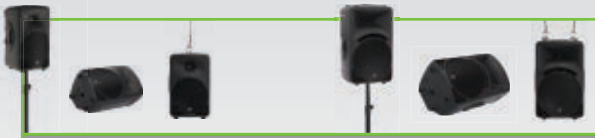

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Jedi Solace for the Tortured Artist?

BY SHAWN HAMMOND

@PG_shawnh

There's no shortage of anecdotes about the strange behaviors of musicians, actors, and other creative types through the ages. *This Is Spinal Tap* is chock-full—and they're not even that exaggerated. "Tortured artist" is pretty much a kinder way to call us crazy.

The stories are often all too true, but it's really no laughing matter—and I'm not just being PC. As neuroscientist Nancy Andreasen discusses in her fascinating recent article for *The Atlantic* ("Secrets of the Creative Brain," theatlantic.com), brainiacs and scientists—from Aristotle to Shakespeare and Sir Francis Galton—have noted for centuries that creative geniuses seem destined for melancholy and/or madness. But she's got a lot of evidence from modern clinical studies to back this up. The research is ongoing, but one thing seems clear: There's a link between strong creative drives and vulnerability to depression, schizophrenia, and other mental ailments.

Of course, all sorts of people struggle with this, and as decent people we should sympathize with them—it's not just about being bummed sometimes. But as certifiable music junkies, we should perhaps pay extra attention to this correlation with creativity: Our own friends and bandmates might be suffering in silence. Or maybe that'll be us someday—maybe it is *now*. It's not egomaniacal to think any of us could be at risk—you don't have to be famous to be plagued by your muse.

Andreasen's research draws from decades of interviews with notable writers (including novelist Kurt Vonnegut), extensive data analysis from various studies, and brain scans of influential mathematicians, Nobel laureates, and even filmmaker George Lucas. (Say what you will of his last three *Star Wars* flicks—and if it's vitriolic, I'll probably agree with you—but apparently he *is* a bona fide polymath.)

Perhaps the most salient point from the *Atlantic* piece—that "having too many ideas can be dangerous"—was crystallized by one of Andreasen's study subjects who's a scientist.

> *[She/He] described to me "a willingness to take an enormous risk with your whole heart and soul and mind on something where you know the impact—if it worked—would be utterly transformative." The* if *here is significant. Part of what comes with seeing connections no one else sees is that not all of these connections actually exist. "Everybody has crazy things they want to try," that same subject told me. "Part of creativity is picking the little bubbles that come up to your conscious mind, and picking which one to let grow and which one to give access to more of your mind, and then have that translate into action."*

Isn't that us—the whole-hearted risk takers? Aren't we all looking for the song or riff or lyric that's transformative, if not for our band or audience or the world, at least for ourselves? But *which one* will it be? And is our obsession with the phrasing or the tone or the infinite nuances healthy or a slippery slope?

Andreasen illustrates the dreaded tipping point for those at risk with a well-known example: In the 1960s, math savant John Nash (the inspiration for the Oscar-winning film *A Beautiful Mind*) was being treated for mental illness when a fellow mathematician visited to ask how he, as a logician, could possibly believe he was receiving communiqués from aliens. Nash responded, "Because the ideas I had about supernatural beings came to me the same way that my mathematical ideas did. So I took them seriously."

Whether your creative labor pains sometimes leave you feeling a little unhinged or you just want to understand our crazy world a little better, you should read this piece. You'll find yourself wondering if the bizarre stories about creative geniuses and tragic lives like those in "the 27 Club" have less to do with megalomania and extra dough to blow on blow than with minds trying desperately to mod a circuit wired for morbid levels of creativity. You may even be less inclined to view wonderful weirdoes—perhaps yourself—as pathetic or deserving of scorn, and more in need of understanding … maybe even a hug.

Shawn Hammond
Chief Content Officer
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FEEDBACK LOOP

Staff Picks

Hiya,
I'm a *Premier Guitar* subscriber from over here in England, and I just wanted to thank you for producing such a top-class magazine every single month. Without question, it's the one-and-only guitar magazine that I simply can't do without!

I have one comment though: Every month *Premier Guitar* hits my doormat, one of my first go-to articles is Staff Picks (and Mod Garage). What I loved about Staff Picks was always the "What Are You Listening To?" because it always opened my ears to new music that your editors loved and were passionate about. But the last few editions have been missing this section in Staff Picks.

Please tell me "What Are You Listening To?" hasn't gone for good! Here's one reader that really misses that part of Staff Picks.

Keep up the great work and the excellent quality of writing.
All the best,
—Gary Millen,
Yorkshire, England

Hey Gary! Great to hear from you, man—and wonderful to hear you're a big fan of PG!

To answer your question, technically speaking, Staff Picks leaves every opportunity for our editors and "guest pickers" to chime in on what they're listening to at the moment. However, we wanted to give everyone a little more leeway to talk about anything guitar- or music-related that they're stoked about at the moment, rather than just requiring them to spit out the name of an album. I will remind everyone that readers are eager to know what they're listening to, though, so we don't lose that aspect of it. Thanks for reaching out!
Shawn Hammond,
Chief Content Officer

Amplified Mystery

As a longtime guitar player, dealer, and sometime recording guy, I must thank Larry Fishman for his candid and forthright acknowledgement of an unalterable truth—tones produced by guitars are a complex equation and are modified by all means that reproduce and/or amplify them ["Acoustic Soundboard: You Can't Always Get What You Want," July 2014]. That is not to say that the modified tone is worse, or better for that matter, but it is different.

The search for better is an ongoing one and Fishman, along with others, has spent the last several decades making giant strides in options and ease of use. Like most things sound related, the "best" is the one that works best for the player.

There are some limits about which some people seem to be unaware. A guitar played over the phone will tell you nothing about the tone of the instrument. Likewise, a well done recording of a guitar with great equipment can give you a good idea of how that player, with that selection of mics, in that room can make a particular guitar sound. That can be helpful, but it's a guideline only.

I see none of this as negative. The joy of guitars and guitar playing is in the nearly infinite variety that the combination of wood, steel, electronics, and other factors I do not claim to understand, can yield.

So again, thanks Larry. While you were addressing but one element of the issue, the modification of tone when amplification systems of any sort are used, you underscored one of the elements that makes guitar playing so wonderful, mysterious, and, sometimes, gloriously frustrating.
—Jay Pilzer, New Hope Guitar Traders
Nashville, Tennessee

Keep those comments coming!

Please send your suggestions, gripes, comments, and good words directly to **info@premierguitar.com**.

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"@premierguitar Turn down...for what?"
—@HReadDavis

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I literally just got done having a conversation with my wife about your FB page and how much I enjoy information you guys provide. You guys are the best and for some reason I felt compelled to reach out to you and let you know that what you're doing does make a difference. It's educational, entertaining and family friendly for upcoming guitarists who don't need to be bombarded with adult images. Keep up the outstanding work guys and girls!!
Mike Tame

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CONTENTS *September 2014*

p. 53

p. 83

ARTISTS

76

Slash
On the humanity of music, improvising off of himself, and being pushed in the studio.

28

Summer NAMM
Temps were unseasonably cool in Nashville, but the new-gear scene was hot as ever.

53

Unsung Pickups
Six unique pickup models that have never quite gotten their due.

67

Forgotten Heroes
Emily Remler, a nice New Jersey girl, changed jazz forever.

107

Must-Try Wiring Mods
These DIY mods just may change the way you play.

83

Brian Setzer
The twangmeister reveals how blasting Zeppelin LPs with his daughter inspired his new album.

94

Ernest Ranglin
The Jamaican guitarist who pioneered chank rhythm releases a collection of melodic instrumentals.

REVIEWS

132 **Danelectro** 59 M-NOS

132 **Yonac** ToneStack

133 **Cort** Jeff Berlin Rithimic Bass

133 **EarthQuaker Devices** Terminal

134 **Maton** SRS 70

136 **Beigel Sound Lab/Mu-FX** Tru-Tron 3X

139 **Universal Audio** Apollo Twin

143 **DigiTech** Bass Whammy

146 **Bradford** Sterling

149 **Stomp Under Foot** Hellephant

152 **Novax** 25th Anniversary Sweet Annie

155 **Visual Sound** V3 H2O

158 **Peerless** Retromatic B2 Bass

Above Left: Photo by Russ Harrington

G7593T-BD Billy Duffy
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CONTENTS *September 2014*

"Most people in Texas didn't like black people because they were too dark, and they didn't like me because I was too white."

—Johnny Winter, Obituary, p. 24

19 Opening Notes
24 Obituary
130 Tools for the Task
160 Staff Picks
174 Esoterica Electrica
176 Last Call

GEAR

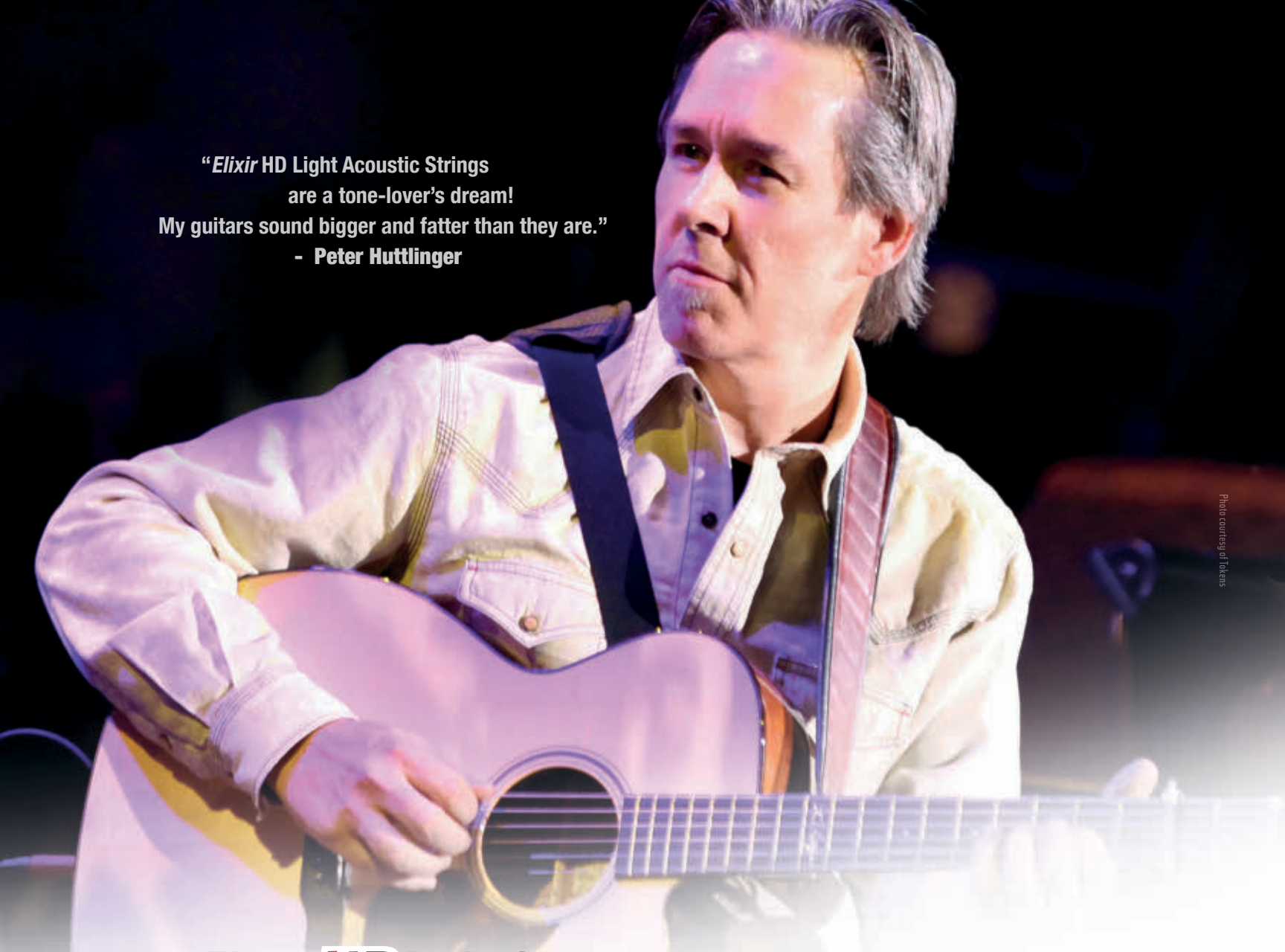
26 Rig Rundowns
50 Vintage Vault
48 Bottom Feeder
74 Tone Tips

HOW-TO

92 The Recording Guitarist
100 Guitar Shop 101
102 On Bass
104 Bass Bench
124 Mod Garage
126 Ask Amp Man
128 State of the Stomp

p. 50

Above: Photo by Michael Weintrob **Bottom:** Photo by Tim Mullally



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ELX-381-ADV-US-JUN14

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FEATURED

Weened & Reborn

It's been seven years since **Aaron Freeman**, aka Gene Ween, left Ween after a 25-year run and went to rehab. He's now sober and he's got some stories to tell, and is doing so under his new project **FREEMAN**, a band that features guitarist Chris Boerner, bassist Brad Cook, keyboardist Dave Godowsky, and drummer Kyle Keegan. We interviewed Freeman about his approach to the eponymous release, which was produced by Chris Shaw (Bob Dylan, Public Enemy). The album explores the aftermath of addiction through songs of psychedelic pop and offbeat melancholy, but Freeman says it's not a soapbox for sobriety. "Recovery isn't what defines you, it's something you do to survive," he tells *Premier Guitar*. "Artistically, I'm the same as I ever was."

Read the interview at premierguitar.com/sep14

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DEEP CUTS
Al Anderson's "You're Just Laughin' Inside"
By Adam Levy

New Footage

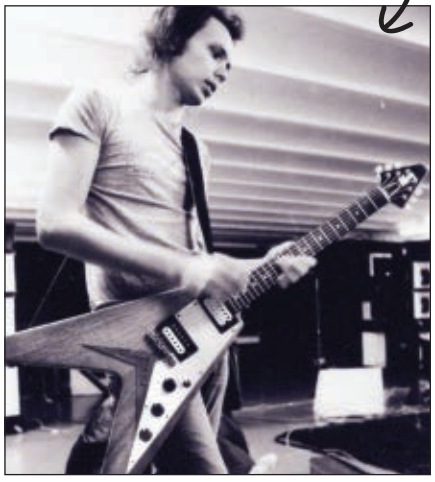
If you've been stuck under a rock and haven't seen any of our **Summer NAMM** coverage from Nashville, check out the *PG* Editor's Picks from the floor on p. 28. Then head over to ***premierguitar.com/snamm2014*** to see three photo galleries full of the latest guitar and bass products that were launched this season. After that, scour the nearly 70 video interviews and demos for your latest gear fix! And don't miss two extra-special and ultimately awesome **Rig Rundowns** that just went up: the legendary **Brian May** of **Queen** and **Tommy Thayer** of **KISS**. Enjoy it, friends!

GUITARDOM'S TOP TWEETS

Rest in Peace Johnny Dawson Winter III a son of Texas and a son of the Blues. There will never be another like you.
@JBONAMASSA

I couldn't be the only one that would much rather see a Pete Townshend tour than yet another Who greatest hits tour.
@greeneandy

Rehearsal space in Highland Park, IL 1973.
@DantzigGuitar



Look, it's a great big world and there's a lot to keep busy with, but every once in a while you have to remember that Van Halen rules.
@JohnMayer

Watching Dave Grohl's Sound City for the 380,791247th time. Inspiring genius.
@davyknowles

Receiving the Gtr Legend award from APMA was quite the honor. Receiving it from friend & mentor @JoePerry put it over the top. iiii];)'
@Slash

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OPENING NOTES

Oz Noy

June 7, 2014
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Nashville, TN
Photo by Andy Ellis

Oz Noy digs into his No. 1, an alder-bodied Fender Custom Shop axe based on the company's '68 Relic Stratocaster. It's loaded with a pair of Custom Shop '69s in the neck and middle positions, and a bridge single-coil that was overwound by Lindy Fralin.

OPENING NOTES

Mitch Mitchell

June 13, 2014
The Fonda Theatre
Hollywood, CA
Photo by Lindsey Best

The longtime guitarist for indie-rock pioneers Guided by Voices gets to work with the favorite of his many Les Pauls, a 1992 Standard that's had no modifications whatsoever.

OPENING NOTES

Jeff Walker

June 14, 2014
The Metro Theatre
Sydney, Australia
Photo by Ben Hosking

The bassist and lead vocalist for grindcore/death-metal champs Carcass brings the heavy to the table with his go-to axe, a 2011 Triturador. Designed by Walker and built by the Fernandes Custom Shop, it sports a pair of EMG 35DCs and an onboard EBS distortion circuit.

OPENING NOTES

Johnny Winter

February 27, 1975
Auditorium Theatre
Chicago, IL
Photo by Jim Summaria

In this mid-'70s photo, the late blues legend is shown channeling magic through the iconic 1964 Firebird V he purchased for $250 at a 1970 summer festival he played. Rest in peace, Mr. Winter.

SCHECTER PICKUPS

We here at Schecter are returning to our roots with a complete line of USA, hand-wound pickups made right here, in our factory in Sun Valley, CA. Along with faithful reproductions of some of our most sought out pickups of the 70s and 80s, we are also proud to introduce a line of new, modern pickups for the evolving player. From our original SuperRock™ humbuckers to our new ultra-aggressive San Andreas™ series, there is something for every style player around.

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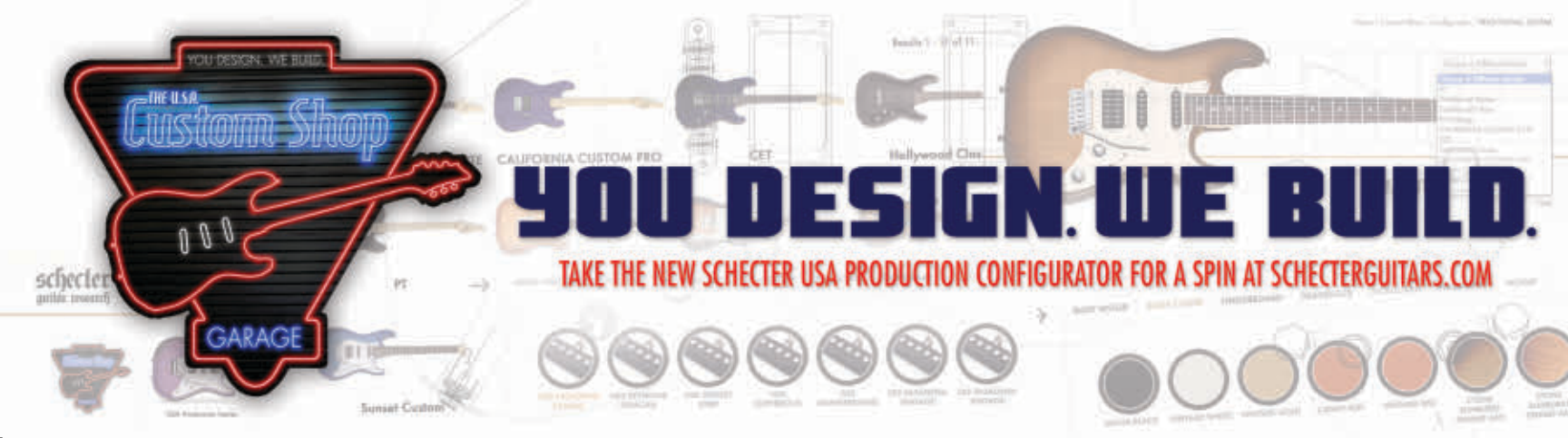


| 1944-2014 |

JOHNNY WINTER

The Texas bluesman's fiery licks laid the foundation for '70s blues-rock while honoring the sound and spirit of Muddy Waters and Howlin' Wolf.

BY TED DROZDOWSKI

On Wednesday, July 16, Texas blues guitar giant Johnny Winter was found dead in his hotel room in Zurich, Switzerland. Known for his stunning slide work and solos that exploded in dazzling fusillades of notes, coupled with his deep devotion to the blues tradition, Winter was 70 years old and enjoying a renaissance in his career, which began in the late 1960s and included a historic performance at Woodstock.

Winter was thoroughly upbeat when he spoke to *Premier Guitar* last month. His decades-long addiction to methadone was behind him and his back afflictions were improving. He had a busy touring schedule and a documentary about his life, *Johnny Winter: Down & Dirty*, had debuted at Austin's South by Southwest Film Festival in March. He'd also just wrapped an album, a guest-star packed set of blues classics called *Step Back*, that's set for release on September 2.

"I feel great," Winter said during the interview. "Physical therapy helps, but so does not taking drugs and drinking.

"Takin' dope is not good for you," he added, chuckling.

If there's one thing Winter was always serious about, it was blues. Growing up in Beaumont, Texas, he was an outcast due to his albinism—a condition he shared with his multi-instrumentalist brother Edgar. And he found connection in the recordings of Howlin' Wolf, Muddy Waters, and the other bluesmen he heard on the radio, who he saw as kindred souls.

Photo by Michael Weintrob

"Most people in Texas didn't like black people because they were too dark, and they didn't like me because I was too white," he said, only half-joking. "That helped me relate to the black experience."

Winter played with absolute intensity from the start, developing a rapid-fire two-finger picking technique that would become one of his signatures. He got his first guitar when he was 12 and cut his debut single, "School Day Blues," for a local label at age 15 with his band Johnny and the Jammers. In 1967, when Winter was 23, he recorded his initial album *The Progressive Blues Experiment* on stage at Austin's legendary psychedelic blues and rock club the Vulcan Gas Company. The next year he was signed to a deal with Columbia Records after he floored the crowd—and label executives—at the Fillmore East performing his hero B.B. King's "It's My Own Fault" as a guest during a Michael Bloomfield and Al Kooper concert. His advance of $600,000 set a recording industry record at the time.

By the end of 1969 the incendiary picker and gravel-throated vocalist had released his major-label debut *Johnny Winter* and the follow-up *Second Winter*, and been among the emerging musical heroes at Woodstock, laying out the blueprints for the future of American blues-rock and even Southern rock along the way. *Johnny Winter* relied mostly on classic blues tunes. His thorny interpretations of numbers like King's "Be Careful with a Fool" and Sonny Boy Williamson's "Good Morning Little School Girl" displayed an edgier, more distinctly domestic approach to the music than his British contemporaries. *Second Winter* offered more original tunes, but began his transition toward rock.

Under pressure from Columbia, Winter added Rick Derringer as a second guitarist and pursued stardom with the influential *Johnny Winter And* and *Still Alive and Well* albums in 1970 and 1973. Between those releases he also developed a heroin problem that was quickly replaced by the methadone addiction that would dog him for decades. Those albums, along with the Allman Brothers first titles, cast the die for two-guitar blues-rock ensemble playing. Nonetheless, 41 years later Winter still complained that Derringer played too much and too loud. "All I need to play well is a good strong snare beat and other musicians who don't get in the way," he observed.

"Most people in Texas didn't like black people because they were too dark, and they didn't like me because I was too white. That helped me relate to the black experience."

By 1974 he was a fixture in the consciousness of rock 'n' roll with his white, wraith-like, often-shirtless frame wrapped around the 1964 Gibson Firebird that still accompanied him onstage during his final performances. Winter's concert igniting howl "rock 'n' roll" was already a ritual, and he'd jammed with every famous string-slinger in rock and blues, including Jimi Hendrix and Eric Clapton.

For Winter, however, the highest satisfaction came from the albums he made with blues godfather Muddy Waters in the late 1970s: Winter's own *Nothin' but the Blues* and the Grammy-winning trio *Hard Again*, *I'm Ready*, and *King Bee* that he produced for Waters.

"I had so much fun making those records," Winter recalled. "I learned pretty much everything from Muddy—from his old records—so I knew exactly what he was going to do, which is why I was so good at producing him. Muddy, Robert Johnson, Son House, and Elmore James got me interested in slide."

In the '80s Winter settled into a routine of playing clubs and festivals that he continued until the present, playing 120 or more dates a year. There were high points along the way, like the three albums he recorded for reigning blues independent label, Alligator Records, starting with 1984's *Guitar Slinger*, and 1992's semi-acoustic *Hey, Where's Your Brother?*—a nod to Edgar Winter.

Addiction was unkind to Winter. As the '90s turned into the 2000s, his methadone and alcohol issues sometimes made him seem a shell of his former self onstage. Winter credited Paul Nelson—his friend, manager, second guitarist, and producer, who he met in 2004—with saving his career and his life.

"I had a good time and enjoyed drugs and drinking," he said, "but I overdid it. It was great in my 20s. The older I got the worse it was for me. A lot of people I know are dead. I could have died a bunch of times. Maybe I died years ago, but God was on my side."

In 2011 Winter broke a seven-year recording hiatus with the album *Roots*, revisiting some of his favorite blues numbers with the help of Warren Haynes, Derek Trucks, Susan Tedeschi, Vince Gill, Edgar Winter, and other heavyweights. The disc was heralded as a partial return to form. This February the four-disc retrospective *True to the Blues: The Johnny Winter Story* was released, providing a new generation of listeners an opportunity to delve into his fiery early catalog. And his upcoming *Step Back* is an edgier sequel to *Roots*, with guest appearances by Eric Clapton, Leslie West, and Billy Gibbons, to name a few.

Winter had a few unscratched items on his bucket list. He told *Premier Guitar* that he wanted to win a Grammy for an album of his own. He also wanted to write more original tunes, which he hadn't done for over a decade. He hoped for induction into the Rock 'n' Roll Hall and Fame, and wanted to travel to Egypt to see the pyramids. He also wanted to be remembered as a torchbearer for the music he loved, remarking that he hoped his name was synonymous with "good blues."

"The music reflects me, of course," he said. "I play what makes me feel good, and I'm interested in sharing that feeling with other people."

Brian May

QUEEN

FACTOID
It took Brian and his father nearly two years to build Red Special.

If there was a Mount Rushmore of British guitar heroes, Queen's Brian May would grace that mountain. We caught up with May (and his longtime guitar tech, Pete Malandrone) on Queen's summer tour with Adam Lambert. We discussed his minimal effects, Vox amps, and of course, the Red Special.

GUITARS

Brian May's entire career has been almost exclusively spent with the guitar that he and his father built in 1964. "Red Special" is a three-pickup guitar with Burns pickups and a very unique switching system that allows May to cover a huge range of tones. According to May, everything on the guitar is still original except for the tuning pegs and the rollers on the bridge.

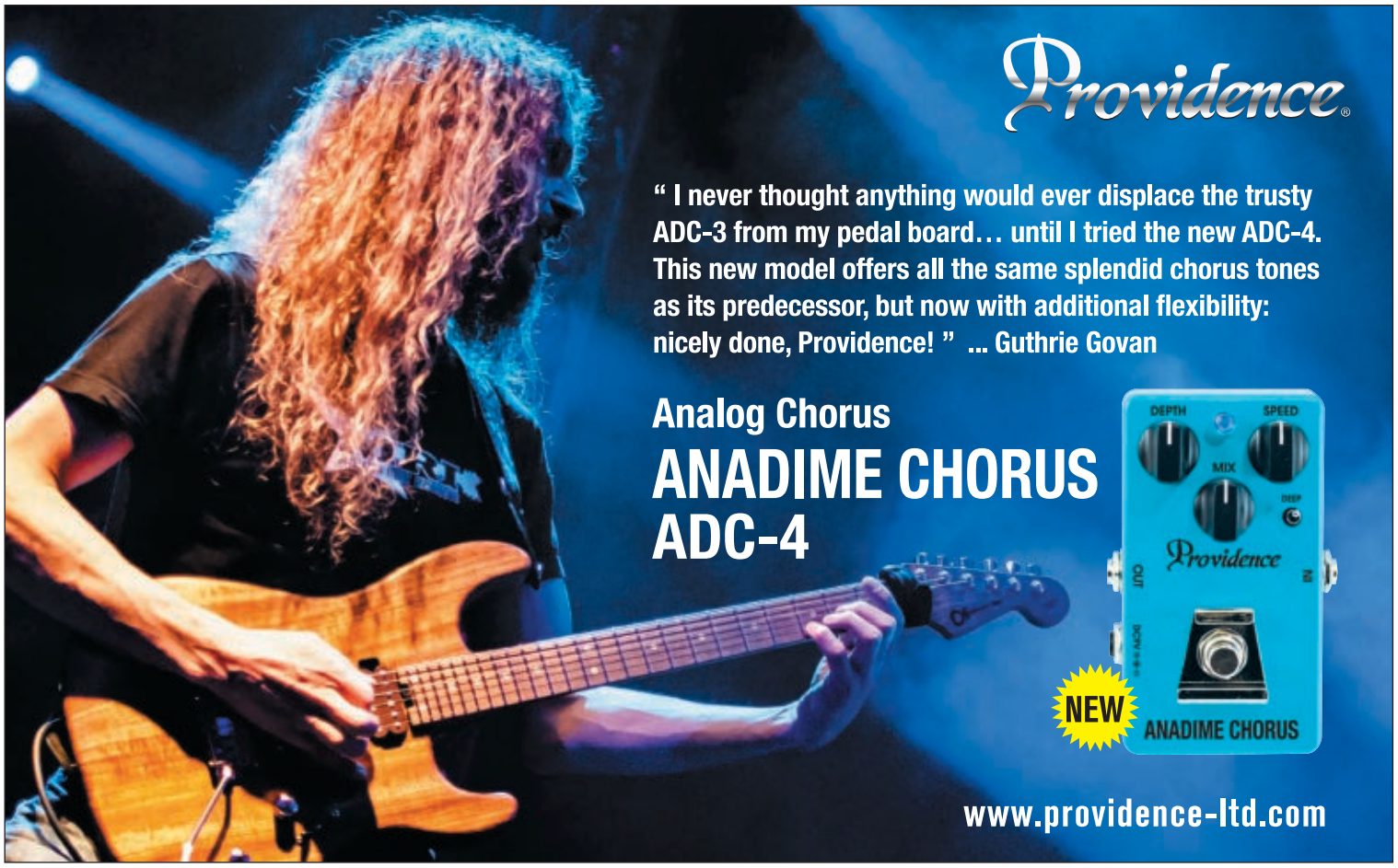
During a typical show, the only time May switches guitars is for "Fat Bottomed Girls," which is in dropped-D tuning, and "Crazy Little Thing Called Love." For the latter, he uses a Guyton guitar that is very similar to Red Special with the addition of an f-hole, non-trem bridge, and an internal piezo pickup. All his guitars are strung with Optima 24 Carat Gold .009–.042 strings.

EFFECTS

The only real effects May uses is his Fryer Treble Booster mounted on his guitar strap, a Dunlop rackmounted wah, and a pair of TC Electronic G-Major 2 delay units (one set to 800 ms and the other 1600 ms). Malandrone handles all the switching offstage via a KAT MIDI controller.

AMPS

Instead of hitting a dirt box for distorted tones, May simply uses the volume control on his guitar to wrangle all he needs out of his trio of Vox AC30s. The amps are set up in a wet-dry-wet configuration with the center amp receiving a totally dry signal and both of the outside amps getting a different delayed signal. The ping-pong effect is mirrored in the onstage monitors as well. Each amp has been heavily modded to remove all the unnecessary (at least to May) reverb and tremolo circuits.



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Temperatures were unseasonably cool in Nashville for Summer NAMM, but the new-gear scene was as hot as ever.

BY SHAWN HAMMOND, TESSA JEFFERS, AND CHARLES SAUFLEY

Look for the this icon to see a **video demo** at **premierguitar.com** or **youtube.com/premierguitar**

ELECTRIC GUITARS

▲ ZEMAITIS Generation 2 Metal Top

Britain's rock royalty prized Tony Zemaitis's original guitars. Tony has passed, but the guitars that bear his name remain true to his craft—and Brit irreverence. The latest incarnations, dubbed Generation II, are the most affordable models yet. Not cheap, but a deal for a guitar that looks and feels like a classic Zemaitis.

Street price: $2,400

zemaitis-guitars.com

◀ RED ROCKET RocketMaster

Red Rocket Guitars had some of the show's most eye-popping electrics, including this pink-sparkle RocketMaster. It has a cocobolo-bound alder body, a ziricote-topped Chechen neck, Hipshot locking tuners, Bigsby vibrato, TonePros bridge, and Lindy Fralin pickups (a hot Firebird-style mini-humbucker in the neck position and a PAF-style bridge unit).

Street price: $3,950 (with G&G case)

redrocketguitars.com

▲ ELLIOTT 357 James Duke

North Carolina luthier Andy Elliott showcased his Elliott Guitars 357 James Duke signature model. It features two single-coil gold-foil pickups (which Elliott describes as "like a good humbucker on the low end and a smooth single-coil on the high end"), an alder body, maple neck with rosewood, and an acrylic pickguard handpainted in vanilla shake pearl and white from the back.

Street price: $4,700

elliottguitarsnc.com

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Or, you could slip the sleek Fly Rig 5 into your guitar case and hit your gig so chill it would make Sinatra look awkward.

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The lovable, totable Fly Rig 5 is perfect for fly gigs, fast-turnaround sessions, studio rehearsals, backup rig, or even as your main rig.

Freedom never sounded so sweet.

TECH 21

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www.tech21nyc.com

ELECTRIC GUITARS CONT'D

GIBSON ES-Les Paul

While the Gibson ES-Les Paul isn't the first semi-hollow Paul, it may be the most realized manifestation of the idea. The center block is maple, which imparts cool high-mid presence without sacrificing the smoky blues tones 335 players love. In short, this thing has range.

Street price: $2,799

gibson.com

STERLING BY MUSIC MAN

LK100D Steve Lukather

Sterling by Music Man's new LK100D Steve Lukather signature model features the same DiMarzio Transitions pickups and compound-carved V neck as Luke's U.S.-made model, plus a 12 dB push/push boost, a floating tremolo, and a basswood body—at a screaming price point.

Street price: $869

sterlingbymusicman.com

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ACOUSTIC GEAR

MARTIN Louvin Bros. D-28

Martin's D-28 Louvin Brothers Custom Signature Edition features the cover art from the country-gospel duo's *Satan Is Real* album. (Chris Martin says a T-shirt purchased at Ernest Tubb's Nashville record store inspired the dreadnought's design.) It features a Sitka spruce top and East Indian rosewood back and sides. Only 50 will be made.

List price: $4,666

martinguitar.com

MICHAEL KELLY S6 Renaissance

Michael Kelly Guitars announced a new partnership with legendary luthier Rick Turner to offer Korean-made versions of Turner's Renaissance semi-hollow guitars for an amzing price. The S6 models are available in steel-string (shown), nylon-string, and bass models. The bass and steel-string models having okoumé tops, while the nylon-string's top is cedar. All feature okoumé bodies, rosewood-topped mahogany necks, bone nuts, and D-TAR electronics.

Street price: $699

michaelkellyguitars.com

FAITH FVHG Venus Hi-Gloss

U.K.-based Faith Guitars' entire line is designed by renowned luthier Patrick Eggle using all solid woods. The FVHG Hi-Gloss Venus has a European Engelmann spruce top, Indonesian rosewood back and sides, Indonesian mahogany neck with a Macassan ebony fretboard, and a Shadow Nanoflex preamp.

Street price: $1,109 (with case)

faithguitars.com

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WWW.JAMESTRUSSART.COM/RICHARDFORTUS-STEELOMATIC
PHOTOS BY WWW.KATARINABENZOVA.COM

TAYLOR 150e 12-string

There's no shortage of folks hankering for an affordable Taylor 12-string. This year the company delivered with the 150e. The Sitka spruce and laminate sapele dread sounds classically Taylor and is exceedingly easy to play.

Street price: $699

taylorguitars.com

LOAR Brownstone LH-204-BR

The Loar's new Brownstone LH-204-BR small-body acoustic has a Sitka spruce top, rosewood fretboard and bridge, ivoroid binding, and a vintage-style bound soundhole. The flawless brown satin finish is the icing on the cake.

Street price: $449

theloar.com

Guitar Center

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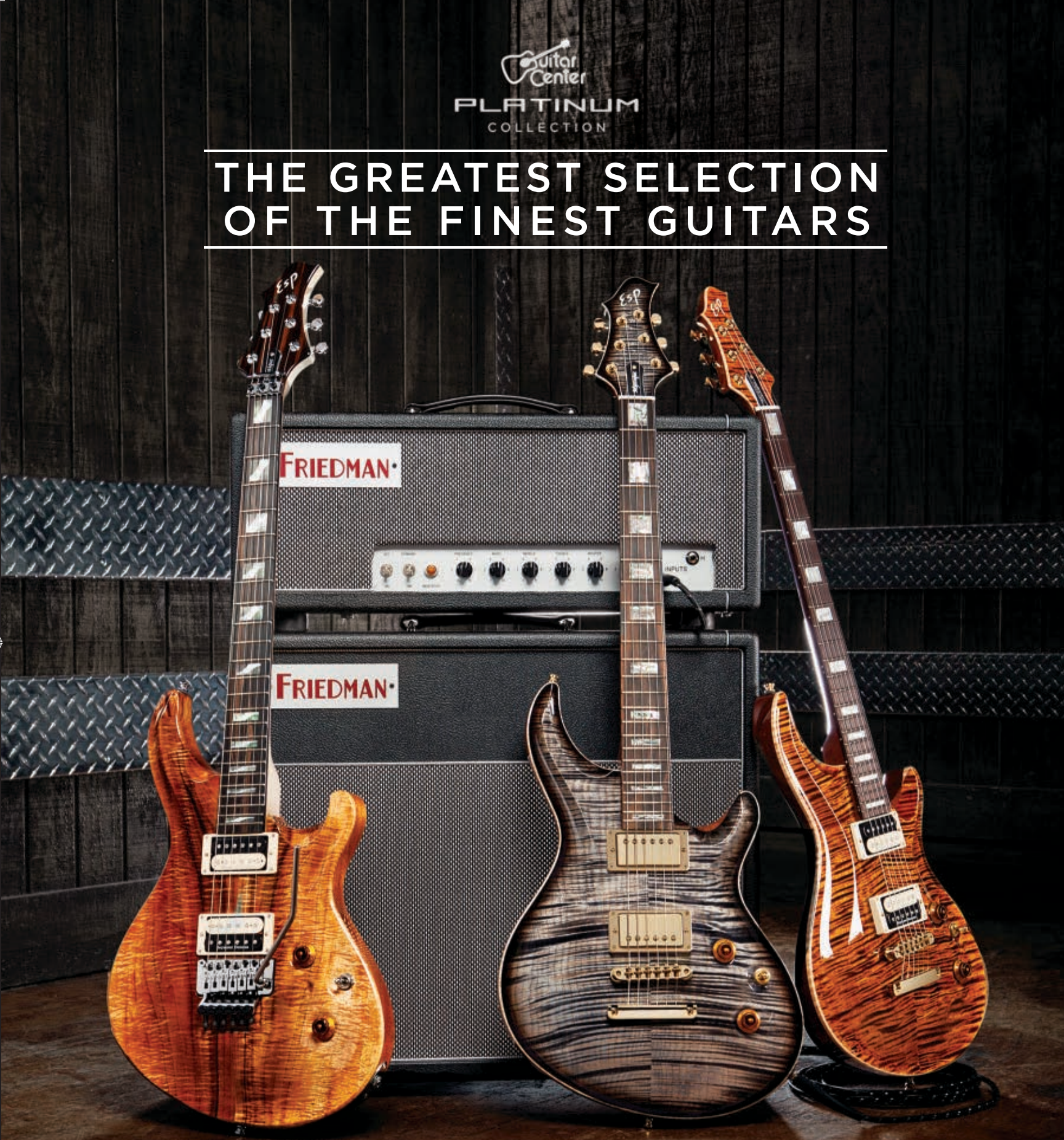

Exhibition Model No. 35 Mystique
with Natural Koa Top
(3739MYST)

The Dirty Shirley
40-Watt Tube Guitar Head

The Dirty Shirley 1x12 Guitar Cabinet
with Celestion Creamback

Exhibition Model No. 47
in see-thru Black Burst
(3741MYST)

Exhibition Model No. 46
Mystique in Tiger Eye
(3740MYST)

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AMPS

DEVILCAT Jimmy Jr.

The new Jimmy Jr. is a 50-watt, 6L6-powered, 1x12 combo with two footswitchable channels and a cascading gain section that can be applied to either channel. It's loaded with a Celestion Vintage 30 and a three-spring MOD reverb—all for a pretty reasonable price.

Street price: $1,299

devilcatamps.com

JACKSON AMPWORKS McFly

The three new boutique amps shown in Nashville by Jackson Ampworks were standouts in tone and design. They include the 120-watt Bakersfield, the 40-watt Fullerton, and the *Back to the Future*-inspired McFly, which has a 1950s vibe.

Street price: Starting at $1,955

jacksonampworks.com

SWART Space Tone 45

The rad-looking 45-watt Space Tone ST-45 head is powered by a pair of 6L6s, uses a GZ34 rectifier, and has a 3-way toggle for changing tone-circuit capacitors. It's aptly named: The amp's warm, clean tones are spacious and otherworldly.

Street price: $2,299 street

swartamps.com

VALVETRAIN Charleston-HP 40

Here we've got a 40-watt version of ValveTrain's previous 20-watt Charleston. It's a modernized, 6L6-powered take on a tweed Fender Deluxe with an Eminence Texas Heat speaker.

Street price: $1,549

valvetrainamps.com

ROLAND Blues Cubes

Roland's new Blues Cube amps depart from past designs via what Roland calls Tube Logic circuitry. Both the 80-watt Artist and the 60-watt Club feature two channels modeled on 6L6-driven tweed amps, with 3-band EQ, output attenuation, reverb, and a 12" speaker. The Artist also features tap-tempo tremolo and a presence control.

Street price: $899 (80-watt Artist), $699 (60-watt Club)

rolandus.com

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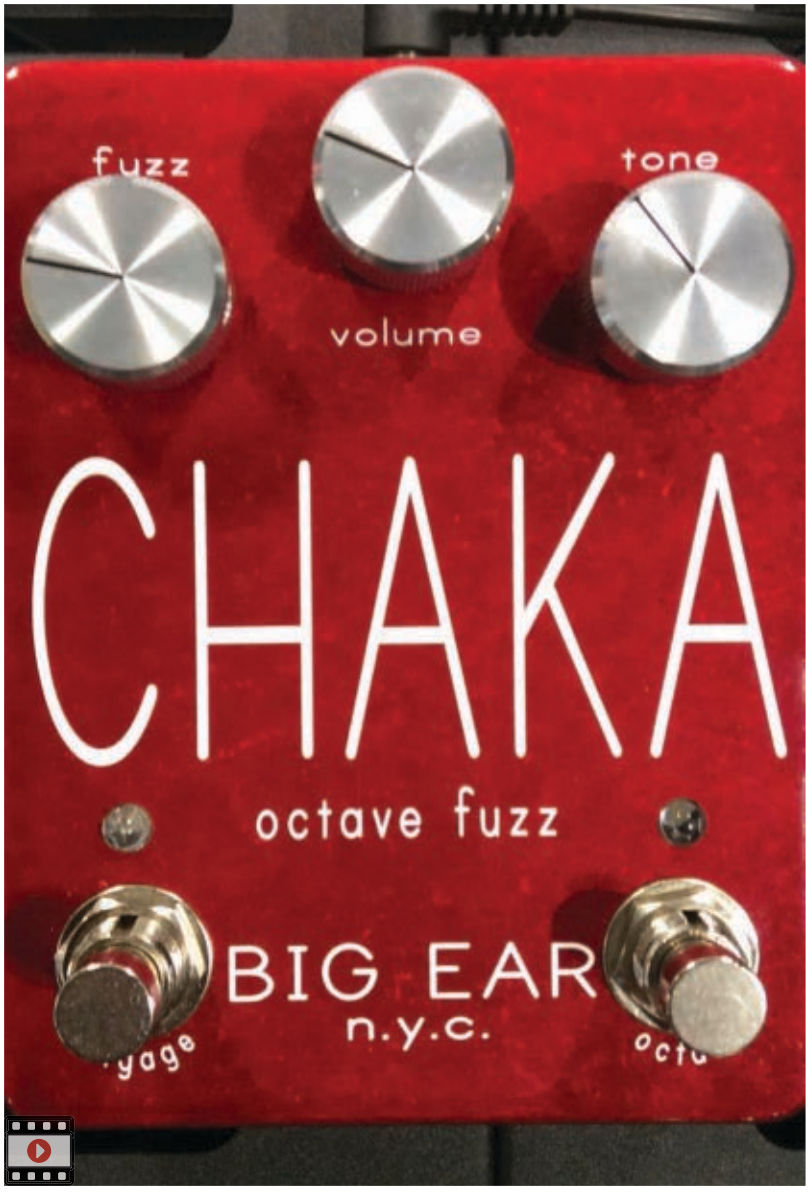
EFFECTS

▲ EARTHQUAKER DEVICES Afterneath

Wicked tones wafted from the Earthquaker booth when Nick Reinhart (of the band Tera Melos) demoed four new pedals from effect mastermind Jamie Stillman, including the Afterneath, an otherworldly reverberation stompbox.

Street price: $225

earthquakerdevices.com



▲ BIG EAR N.Y.C. Chaka

The new Chaka octave fuzz—named after the famous grafitti artist, not the *Land of the Lost* character—uses LED clipping diodes to get gnarly, yet the octave sound is a little more focused, controllable, and articulate than on many vintage-style designs.

Street price: $195

bigearnyc.bigcartel.com

◀ DAREDEVIL Wolf Deluxe

Daredevil Pedals unleashed the Wolf Deluxe—a silicon-based, Fuzz Face-inspired design with an EQ-adjusting toggle that sells for a pretty reasonable sum.

Street price: $135

daredevilpedals.com

powertrain1250

- WORKS WORLDWIDE
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- CABLES AND CONNECTORS INCLUDED
- MOUNTS WITHOUT BRACKETS

EFFECTS cont'd

ÜBERMUT Overdrive

Lift the hood of the Übermut overdrive (yep, it lifts like a car hood) and you'll find a clever little slot for switching out diodes (which you can buy from Übermut). There are myriad sounds on tap, from smooth overdrive to nasty fuzz, making this one very flexible drive pedal.

Street price: $185

ubermut.com

CUSACK MUSIC

Tasty Whirl

The Tasty Whirl is a smaller, simplified version of Cusack's Tap-a-Whirl that features level, rate, and depth knobs, three waveforms—sine, square, and a square-sawtooth hybrid—and optional tap tempo via RCA jack.

Street price: $200

cusackmusic.com

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BASS GEAR

MTD KINGSTON
Norm Stockton Saratoga

Norm Stockton's signature MTD Saratoga bass is remarkably versatile. Stockton's NAMM-floor demo covered everything from punchy, Jaco-like tones to mellow Fender sounds, thanks to the bass' split-coil Bartolinis. The alder body with maple cap and birds-eye maple neck are lovely and beautifully assembled. A real masterstroke from bass luthier Michael Tobias.

Street price: $1,000 (approx.)

mtdkingston.com

BLUE NOTE WOODWORKS
Bassic Bass

This Oregon-based shop's unique instrument can be played as an upright or as a standard electric bass. The 34"-scale beauty's body is made of bird's-eye maple and swamp ash. Upright bass stands are an optional add-on.

MSRP: $3,555

bluenotewoodworks.com

SADOWSKY MetroLine

Roger Sadowsky showcased his Japanese-made MetroLine basses, which have myriad wood options for the bodies and fretboards.

Street price: $2,375 and up

sadowsky.com

JACKSON STEEL GUITARS
Pedal-Steel Bass

Jackson Steel Guitars blew many minds with what may be the world's first pedal-steel electric bass. Fashioned from hard-rock maple, it uses a wide-frequency single-coil and four pitch-changing pedals to unleash harmonically rich tones that suggest a cross between Western steel and an incredibly bell-like fretless.

Street price: $2,000 (approx.)

jacksonsteelguitar.com

Creamback

Vintage tone for the 21st Century

Developed almost 50 years ago, the Celestion Greenback remains an essential ingredient in the blues-rock guitar sound that burst out of the late '60s. Now comes the Creamback – a contemporary take on the Greenback recipe – all that unmistakable vintage G12M tone and the higher power handling necessary for a 21st Century stage.

Find out more www.celestion.com CELESTION

ACCESSORIES

AMPRX POWER SOLUTIONS
BrownBox

The BrownBox amp-voltage regulator is essentially a tricked-out Variac in a 3.7-pound aluminum enclosure. Whether you're looking for cranked high-wattage tones at manageable levels or just trying to get your vintage combo working at period-correct power, the BrownBox lets you reduce voltage by 3, 4, 6, or 10 percent while safeguarding against levels that can damage tubes and circuitry.

Street price: $250

amprx.net

THE ROLLING BENDER

These palm-activated string benders replace Strat-, Tele-, and Tune-o-matic-style bridge saddles with no additional mods. There's even a belt-loop-puller version ($98) that requires a 1/2" hole to be cut in your guitar's body.

Street price: $150-$165

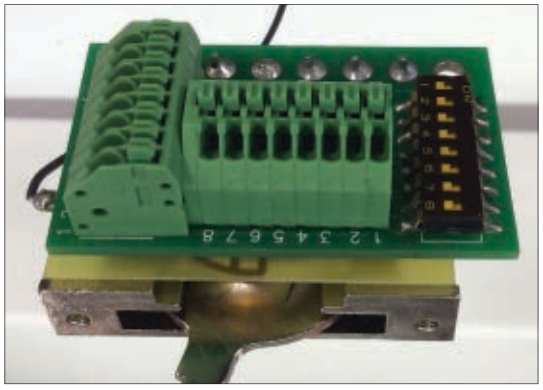
rollingbender.com

GUITARGRIP Zombie Hand

GuitarGrip's latest wall hanger for instruments features impressively detailed aesthetics, composite construction, and a non-slip inner surface.

Street price: $40

guitargrip.com



BLACKBIRD PEDALBOARDS
Feather Board

The ultra-portable new Feather Board accommodates five or six stomps, with room for a regulated power supply, and comes in four amp-style coverings: fawn, black, red, and tweed. The street price even includes an ATA flight case.

Street price: $119

blackbirdpedalboards.com

LACE MUSIC
Solderless System Switches

Lace's new 5-way solderless switch facilitates mess-free rewiring when you want to swap pickups in and out in a flash. Those with no modding experience can use the system with little effort. Three-way toggles are also available, and an unloaded, prewired pickguard with a 5-way switch system is also an option.

Street price: $79 per switch, $129 prewired pickguard

lacemusic.com

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Breedlove

breedlovesound.com

My $60 Blonde T-Style

BY WILL RAY

A lot of people say you can't find good deals at guitar shows any more. But strangely, I can usually find something in the Bottom Feeder range to go home with. A while back I was looking around at the Spartanburg Guitar Show in South Carolina when I spotted this AXL Tele-style guitar (**Photo 1**), which was looking quite lonely on the very last row.

The last row is always my favorite place at that show because that's where the cheaper guitars usually reside. I picked up the guitar and looked at it. With a price tag of $99, it wasn't bad. What drew me to the guitar, however, was its visual appeal—there's nothing quite like an aged-looking blonde Tele with a matching maple neck and black pickguard. Man, that guitar had me at hello.

I tried some licks and it played really well. The action was nice and low, and the maple fretboard didn't have much polyurethane on it, which made it fun to bend strings. The neck was straight with just the right amount of relief, and it felt really easy to play.

I liked the guitar, but there were still more to see at the show, so I moved on. But that guitar stuck in my mind, and when I was done prowling, I went back for a second look. This time, I observed a rather deep gash on the upper bout (**Photo 2**), as well as a major ding on the headstock (**Photo 3**). I hadn't noticed these before.

Bottom Feeder Tip #766: It's always a good idea to do a thorough examination of the instrument before buying. It's easy to overlook flaws when you're in love, and these little flaws can really affect a guitar's resale value later on.

Now $99 wasn't bad, but I wanted to do better. So I talked to one of the workers at the booth and he brought the price down to $80. Cool! But I'm a bottom feeder. The boss finally came over and said, "Yeah, I see the dings. I tell you what, how about $60 cash? I don't want to take it back." We shook hands and I paid the man, who was gracious enough to throw in a nice gig bag to boot.

Bottom Feeder Tip #485: Always carry some cash to a guitar show. A credit card is fine for the big-ticket items, but dealers really like cash, and it can increase your negotiating power.

So how do I like it now? After changing strings and plugging into an amp, I thought the pickups sounded pretty good, though they're a tad on the weaker side when compared to a real-deal Fender Tele. The two pickups were also wired out of phase, an easy fix. But for 60 bucks, it's a steal in my book. I love the aged look, so I'm keeping her for now, but reserve the right to stick in some Seymour Duncans down the road.

3

2

1

WILL RAY *is a founding member of the Hellecasters guitar-twang trio. He also does guitar clinics promoting his namesake G&L signature model 6-string, and produces artists and bands at his studio in Asheville, North Carolina. You can contact Will on Facebook and at willray.biz.*

I was pretty much afraid of everything.
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> While most companies gave the Stones amps for free, Smith charged the band for his handmade Boogies.

Late-'70s Mesa/Boogie Mark I and Mark II Combos

BY DAVE ROGERS, LAUN BRAITHWAITE, AND TIM MULLALLY

Randall Smith became fascinated with electronics at an early age. Then as a teenager, he was captivated by cars and would repair them for his friends. By 1966 he was playing drums in a rock 'n' roll band, putting his technical skills to use by repairing band members' amps. This led to his opening Prune Music in Berkeley, California, with his bandmate David Kessner. While Smith did repairs in the back, Kessner manned the counter. Eventually many popular West Coast bands, including the Grateful Dead and Jefferson Airplane, had their amps serviced at Prune Music.

Around 1969 the roadies for Country Joe & The Fish decided to play a prank on lead guitarist Barry "The Fish" Melton. They had Smith modify Melton's 12-watt Fender Princeton to "do something really wild." Smith installed the classic Fender Bassman circuit and squeezed in a 12" JBL speaker, and the result was a 60-watt amp shoehorned into the small Princeton box. After trying Smith's creation, Carlos Santana declared, "This little amp really boogies." Thus the amp's name became "Boogie."

By the early '70s, Smith had started his own company, Mesa Engineering. Using more gain stages and a master volume control, he came up with a "cascading preamp" concept that could generate sustaining overdrive at any volume level. Santana received one of these amps (eventually known as a Mark I) and used it both onstage and on the epic *Abraxas* album.

Hearing Santana's sound, other top guitarists wanted Boogies too. Because Smith personally assembled and inspected every amp, the wait time in the late '70s could be up to seven months. Keith Richards contacted Smith in 1977 and eventually purchased several Boogies over the years. (While most companies gave the Stones amps for free, Smith charged the band for his handmade Boogies due to the small size of his company at the time.) Boogies can be first heard with the Stones on side three of *Love You Live* taped at Toronto's storied El Mocambo Tavern. Boogies remained the Stones' go-to amps through 1993.

The four Mesa/Boogie amps pictured this month date to about 1978. The two on the left are Mark I models, while the two on the right are early Mark IIs. Featuring a hardwood cabinet and wicker grille, each amp has Mesa's classic '70s look. The price for each of these amps was about $1,200. Their current value is $1,500.

Sources for this article include *Amps! The Other Half of Rock 'n' Roll* by Ritchie Fliegler, *Rolling Stones Gear: All the Stones' Instruments from Stage to Studio* by Andy Babiuk and Greg Prevost, and an interview with Randall Smith by Trent Salter archived on Mesa/Boogie's website.

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Dave Rogers' collection is tended by Laun Braithwaite and Tim Mullally and is on display at:
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davesguitar.com
Photos by Mullally and text by Braithwaite.

Opposite page: These four Mesa/Boogie combos were made around 1978. The pair on the left are Mark I models, while those on the right are early Mark IIs.

Left: Early Boogies sported funky-cool Dymo labels. Now *that's* boutique!

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| LESSER-KNOWN VINTAGE PICKUPS |

These six models boast fine tones and unique personalities, but they've never quite gotten their due.

BY DAN FORMOSA

Pickups are simple devices with only a few parts: magnets, wire, bobbins or coil-formers, and mounting hardware. But those parts interact in endlessly complex ways. Even a small change in materials, measurements, or physical layout can have massive effects on tone. Given that, it's hardly surprising that we have so many different pickups to choose from, each with a unique voice.

Yet a few designs tend to command most of our attention. It's no mystery why humbuckers, P-90s, and Fender single-coils are so popular: They sound excellent, perform consistently, and are suitable for many musical styles. But here we'll sidestep those universally admired classics and focus on a half-dozen great-sounding vintage models from the 1950s and '60s that have never quite gotten their due.

The good news is, originals tend to appear in relatively affordable guitars. Most are also available in historically accurate modern reproductions, thanks to the efforts of manufacturers who love the old designs enough to resurrect them even though they may never be top sellers. As Curtis Novak, one of the experts I spoke to while preparing this story, said: "I make a killer Strat pickup, but where's the fun in doing that all day?"

Pickups appear in alphabetical order, not ranked by coolness. They're all cool.

BURNS Tri-Sonic

Right: From the early years on up to this year's tour with vocalist Adam Lambert, Queen's Brian May uses Burns Tri-Sonics in hish omemade "Red Special" guitar.

Far right: A vintage Burns pickup (top) is too large for a standard Strat, which is why the resurrected company introduced the Strat-sized Tri-Sonic Mini (bottom).

There's a fine line between gimmick and innovation, and James Ormston Burns was often on the border. Ormston Burns Ltd. started guitar production in 1960 with the Tri-Sonic- equipped Vibra-Artist model. He continued producing guitars, many quite futuristic-looking, throughout the decade.

1963 was a busy year at the newly opened Burns showroom in London's St. Giles Circus. Burns refinished John Lennon's honey-colored Rickenbacker 325, making it black and adding Burns knobs. (The Beatles' George Harrison can be seen playing a Burns Nu-Sonic Bass during 1966's "Paperback Writer" and "Rain" sessions. Not having a right-handed bass, the band rented the instrument for the sessions.)

Also in 1963, Brian May and his dad built the iconic Red Special, the guitar May would eventually play with Queen. After an unsuccessful attempt to make his own pickup, May purchased three Tri-Sonic pickups for his homemade guitar from a rather skeptical Burns sales clerk.

That same year the company launched their Split Sound pickups. These incorporated separate coils for the pole pieces of the upper and lower strings, allowing independent bass/treble adjustment. They also struck a deal with Ampeg to export Ampeg-branded, Burns-made guitars to the States. However, shipping costs made the guitars pricey, and the agreement ended by 1965. That was the year Baldwin took over Burns, leading to a reduction in quality and the brand's 1970 demise.

Burns's marketing was as unique as their pickups. In one 1964 promotion, 70 Burns guitars were given away to breakfast-munching rockers who responded to a contest posted on Kellogg's Rice Krispies boxes.

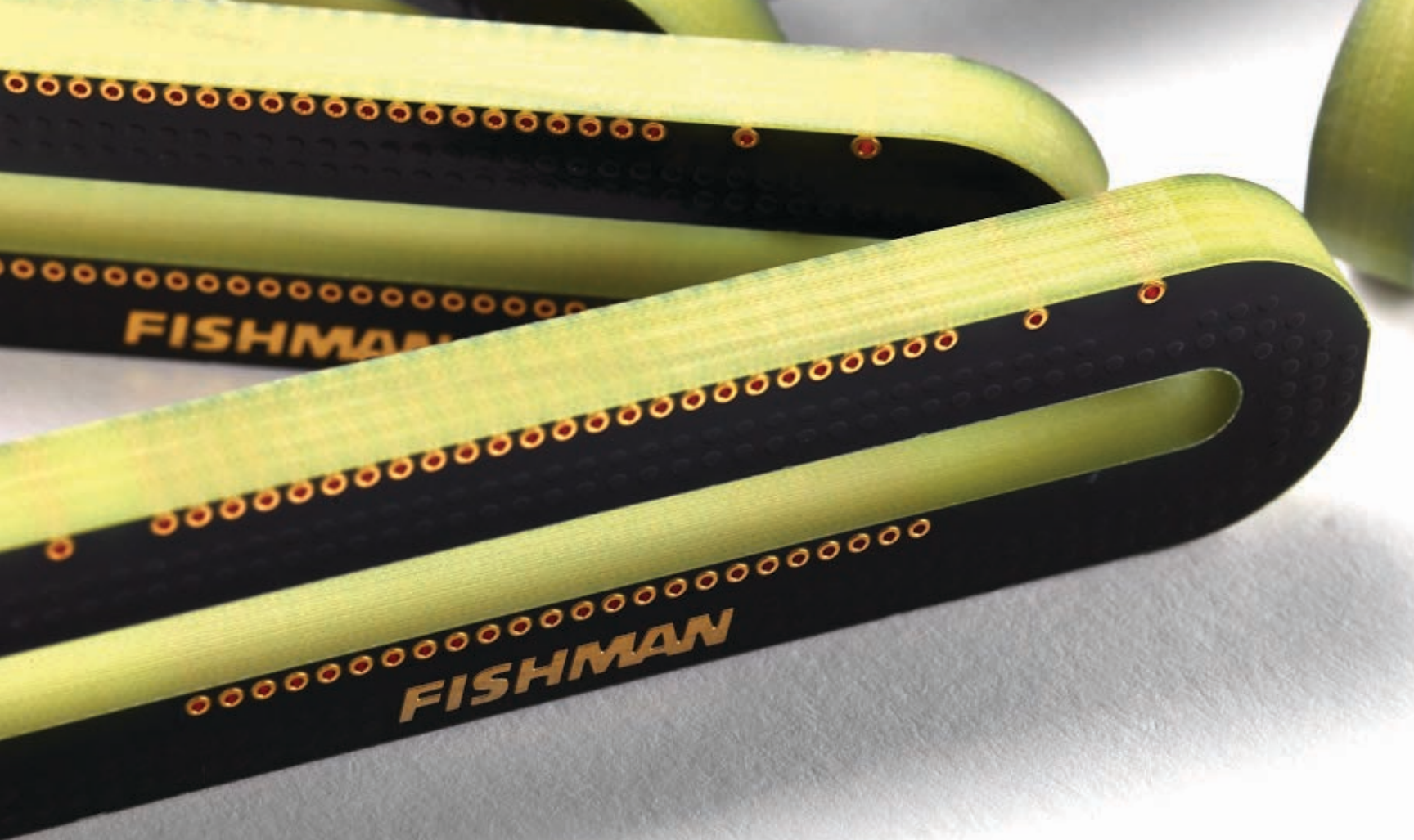
Burns Guitars is currently run by one of James Ormston Burns' biggest fans, Barry Gibson. He formed Burns London Ltd. to revive the brand's former glory. He's particularly enthusiastic about Tri-Sonic pickups, which appear on many current Burns models. According to Barry Gibson, "The most unique feature of the Tri-Sonic, and the reason for its name, is that it picks up sound from three points: the top and both sides." This means that the pickup "hears" a longer-than-usual length of string. The result, claims Gibson, is a uniquely "big, round sound." We don't know whether this was a design feature or an unintended byproduct, but if it was an accident, it was certainly a happy one.

One reason Tri-Sonics remain "sleepers" today is because of their size. You can't install one in a Strat, for example, without enlarging the pickup rout. That's why Barry Gibson and his company have created the Tri-Sonic Mini, which they say offers the original sound in a Strat-sized footprint. Burns has been making Minis in small production runs for several years, and they're currently gearing up for heavier production in hopes of "waking up" this sleeper.

YOUTUBE IT

For just one of countless examples of the iconic tones Brian May creates with his Burns-equipped Red Special, check out the solo at 2:10.
YouTube search term: Queen "Somebody to Love" Official Video

Above Left: Photo by Ken Settle



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Franz Single-Coil

Top: Franz pickups were originally handmade—and rather crudely at that.

Bottom: One of Curtis Novak's modern Franz replicas.

Guild made extremely desirable guitars in the 1950s. Its electric line included archtops as well as the Les Paul-like Aristocrat. But if you refer to their pickups as P-90s, Guild fans will rightly point out that they were in fact made by Franz.

Guild started guitar production in 1953 (though they didn't assign model numbers until the following year). Franz pickups appeared on the early X-series archtops and the Aristocrat. Guild's higher-end archtops had three pickups with pushbutton selector switches like those in early Epiphones. This was no coincidence—Guild was founded by former Epiphone employees who opted not to follow the company when it moved from New York City to Philadelphia.

Franz pickups were manufactured in Astoria, Queens. Guild did not have exclusive rights—Franz sold pickups to other guitar manufacturers as well. They were very much handmade items, and somewhat crudely handmade at that. The bobbins were glued together, not molded, using a type of vulcanized rubber. The top and bottom bobbin pieces were cut at the corners to avoid snagging while winding. Unlike most of the day's manufacturers, Franz had the foresight (at least for a time in the early 1950s) to create separate models for the neck and bridge, spacing the pole pieces accordingly.

Armed with that info, you can confidently point to an old Guild and say, "Those aren't P-90s." Except that, for most practical purposes, they are. Like the P-90, the Franz pickup has two side-by-side bar magnets positioned below the coil. Separating the magnets are the lower portions of the adjustable pole pieces, six 5/40 Fillister-head screws. The magnets sit on a metal base that folds up slightly at the sides.

Curtis Novak, who dissected many Franz pickups in preparation for his current reproduction, encountered widely varying readings from vintage models. Typical values are 4.6k for a neck pickup and 4.9k for a bridge, but some units have DC resistance into the 8k range. This range seems too wide to be accidental. It's likely because lower-reading units were destined for Guild's large-body archtops equipped with heavy-gauge flatwound strings, while the pickups with higher DC resistance were wound for rock guitarists playing solidbodies like the Aristocrat.

Franz bobbins differ slightly from those in P-90s. And according to Seymour Duncan, Franz magnets tend to be relatively weaker and not as loud, though weaker magnets can provide a smoother sound.

By 1959 DeArmond pickups started replacing the Franz pickups on some Guilds. Original Franz pickups are long out of production, though Novak offers accurate reproductions.

YOUTUBE IT

Hear a Franz-equipped Guild in rockabilly rave-up action in this clip of Dave Gonzalez and the Paladins.

YouTube search term: The Paladins : Daddy Yar July 30, 1986

Top: Photo courtesy of Curtis Novak Pickups

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GIBSON Alnico V "Staple"

Top: An original Alnico V. The elaborate engineering permits individual pole-piece height adjustments.

Bottom: One look at the top of an Alnico V, and you know exactly why it came to be known as the "Staple."

Enter your vast, climate-controlled guitar closet and open the case housing your mint-condition 1954 Les Paul Custom in tuxedo-matching black. In the neck position you'll see a Gibson Alnico V pickup, complementing a P-90 pickup at the bridge. Developed by the late Seth Lover around 1952 or '53, the Alnico V was a louder version of Gibson's earlier single-coil, the P-90. While the era's gold, maple-topped Les Pauls sported a pair of P-90s, the mellower, all-mahogany Custom benefitted from the brighter-sounding (and cool-looking) Alnico V.

(The pickup gets its name, of course, from the alloy of aluminum, nickel, and cobalt melded with iron to form the magnets in many guitar pickups. There are many alnico variations, each denoted by a number, though alnico 2 and 5 are most common in guitar pickups.)

Gibson also installed Alnico Vs in their L-5 and Super 400 models, using a dog-eared version appropriate for archtop mounting. Gibson officially designates it the "480" pickup—the "staple" moniker comes from the appearance of its square magnets, chosen by Lover in a deliberate attempt to visually differentiate the pickup from DeArmond's Model 200 pickup (later known as the Dynasonic). Cosmetics aside, the two pickups are very similar.

Seymour Duncan describes the Alnico V as having more output and clarity and a "tighter" tone relative to the P-90. Duncan also notes that it's well suited for the relatively dark tone mahogany produces. The two models are quite different in construction: While a P-90 has bar magnets at its base and adjustable screws for pole pieces, the Alnico V's square pole pieces *are* the magnets. Fine, old-school 1950s mechanical engineering resides within: In addition to offering a unique look, the square magnets allow space for six pole piece-adjustment screws. Like a DeArmond 200, the adjoining screws connect to an underlying spring mechanism, enabling individual pole piece height adjustment. The intricate yet effective design is evident when viewing the pickup from the bottom.

Compared to a Fender single-coil pickup, the Alnico V incorporates a flatter but wider bobbin with more windings, giving it higher DC resistance. Meanwhile, stronger magnets provide more output. A Strat pickup might have DC resistance of 6.3k with 40 to 50 gauss, while an Alnico V is around 8.6k with more than 50 gauss.

The Alnico V/Les Paul relationship was relatively short-lived—by 1957 Les Pauls featured Lover's new humbuckers. But the Alnico V wasn't quite extinct—it reappeared in the 1970s and again in the 2000s in reissues of the 1955 Les Paul Black Beauty. But these days, the Alnico V is chiefly a custom shop specialty.

A close relative to the Alnico V, according to Gibson master luthier Jim DeCola, is a P-90 that appeared in 1946 on the ES-125. That version used round magnets (probably alnico 2) for the pole pieces, not the steel adjusting screws typical of P-90s. (The 1946 P-90 wasn't *exactly* the same—the larger rectangular cross-section of the Alnico V puts the magnets' edges closer to the coil.) That 1946 cousin, now called the P-90S, is found on the new budget-conscious Les Paul Melody Maker.

Seymour Duncan makes a faithful Alnico V reproduction, though Duncan concurs that the pickup was originally conceived as a DeArmond clone—a fact confided by his longtime friend, Alnico V creator Seth Lover. That, says Curtis Novak, is why he doesn't make an Alnico V reproduction. "People ask me why," he says. "It's because it's essentially a Dynasonic."

YOUTUBE IT

Check out Elvis and Scotty Moore with his Alnico V-equipped 1954 Gibson L5 CESN (purchased for $565 in 1955) in this April 3, 1956, performance for the crew of the USS Hancock.

YouTube search term: Elvis Presley - Blue suede shoes - 1956

Top: Photo courtesy of Jim DeCola **Bottom:** Photo courtesy of Curtis Novak

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GRETSCH Hilo'Tron

Top: Gretsch's Hilo'Tron has never been as popular as the company's humbucking Filter'Tron, yet it's a great single-coil pickup.

Bottom: A disassembled modern Hilo'Tron reproduction by Curtis Novak.

If you love twangy surf and rockabilly, Gretsch's Hilo'Tron may be the pickup of your dreams.

Gretsch introduced their iconic Filter'Tron "Electronic Guitar Head" (as in tape recorder head) at the 1957 summer NAMM show in Chicago. Gretsch migrated from the DeArmond single-coil they'd been using to their own version of the Chet Atkins-inspired, Ray Butts-designed Filter'Tron. Like Gibson's newfangled humbucker, it derived its name from the fact that it filtered out electronic hum, and like Gibson's pickup, it relied on a double-coil design. The Filter'Tron put Gretsch in the pickup-making business, at least for use in their own guitars, and to this day, the Filter'Tron is Gretsch's best-known pickup.

But the company also developed their own single-coil pickup, the Hilo'Tron, which appeared in less expensive Gretsch models such as the Tennessean and Anniversary. The Hilo'Tron was designed to make efficient use of parts that Gretsch already had in stock. Essentially, it's half of a Filter'Tron, with one coil instead of two. The magnet that lies beneath the dual coils in the Filter'Tron is instead mounted to an angled steel plate that houses the coil and six pole piece screws. On the other side of the bar magnet is a vertical steel blade (or magnet keeper).

The Hilo'Tron is wound with thinner magnet wire than the Filter'Tron. Hilo'Trons from the 1960s typically have DC resistance from 2.9k to 3.4k. The pickup also has a lower profile relative to the Filter'Tron because of its side-mounted magnet. This permitted surface mounting on Gretsch's archtops.

Hilo'Trons have a reputation for sounding thin, and many guitarists have dismissed them as less desirable second cousins of the Filter'Tron. But hold on there, cowboy—when did twang go out of style? In fact, Gretsch pickup guru Tom "TV" Jones cites the Hilo'Tron as one of his favorite pickups. He suggests that if you've had a bad experience with one, it probably wasn't properly adjusted. Jones's advice is to *not* raise the individual pole pieces too high, but keep them just above the level of the pickup's plastic top, arranged in a slight arch that mirrors the fretboard's radius. The poles pieces beneath the wound strings should be slightly higher than those beneath the plain strings. Once those adjustments are made, jack up the pickup with rubber or foam underneath, bringing the entire assembly closer to the strings. (Jones recommends the same technique for Filter'Trons.)

Curtis Novak compares the Hilo'Tron's underlying plate to an earthquake on rocky ground: "The whole earth just shakes." With the coil sitting on a big steel plate, it gets excited from multiple directions. Also, as Seymour Duncan notes, Gretsch players have a tendency to use relatively heavy-gauge strings, adding to this electromagnetic excitement.

Hilo'Trons have always had fans, and they are regularly "rediscovered" as great-sounding single-coils. They have a strong Beatles association thanks to George Harrison's Gretsch Tennessean, but they're also nice for now. As Tom "TV" Jones notes, "Properly adjusted and running through a Marshall with a gain pedal, Hilo'Trons are amazing."

Comparing a Hilo'Tron to a Strat single-coil reveals many differences. The Strat's cylindrical magnets create a clear, defined tone. Hilo'Trons, with their thinner magnet wire, bar magnet, internal steel, and steel set screws, are softer in the highs, with a wonderfully clanky '60s-style resonance.

The Hilo'Tron is popular enough for TV Jones to make reproductions. His bridge version has wider pole-to-pole spacing to accommodate the slightly wider string spacing near the bridge. Neck pickups are wound to stock vintage specs, with 3.4k DC resistance, while bridge pickups are wound to a hotter 4.3k for better balance. Multiple mounting options are available.

Top: Photo courtesy of Tim Mullally/Dave's Guitar Shop

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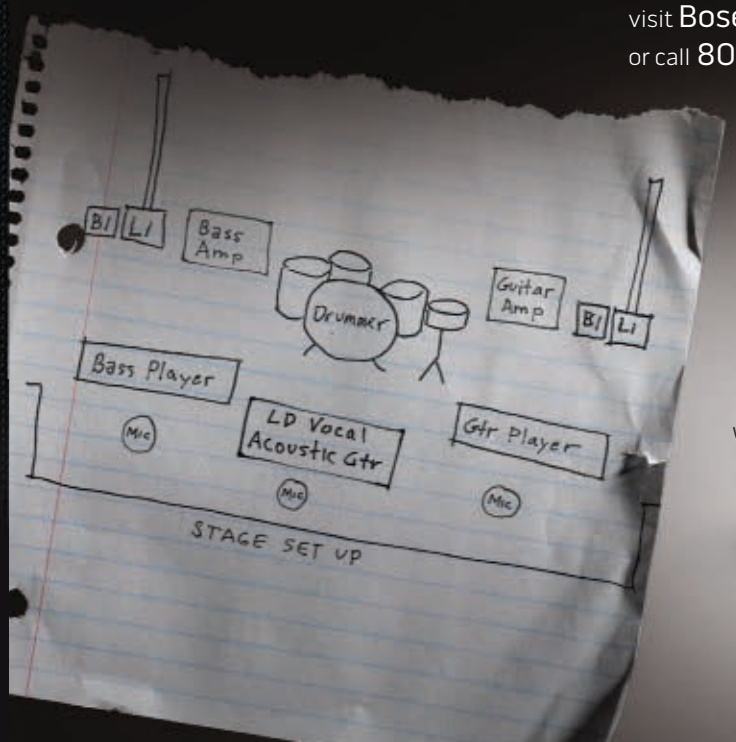

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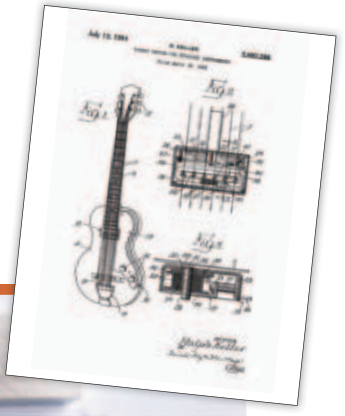
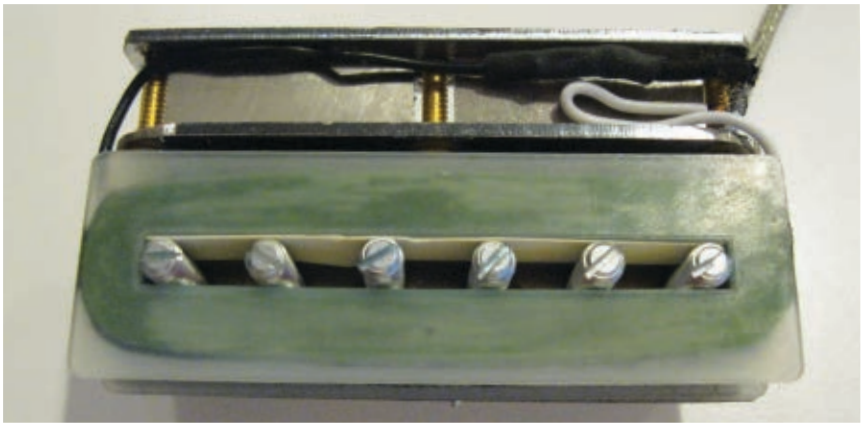
SUPRO Vista-Tone



Top: Ralph Keller's 1952 patent for what became the Supro Vista-Tone.

Middle: An original Supro Vista-Tone bass pickup, pictured with two of the magnets used in Roundhouse's modern reproductions.

Bottom: A Supro-style reproduction by Roadhouse Pickups.



After recording the 1958 instrumental classic "Rumble," Link Wray got a new guitar. Out went Rumble's Les Paul, which had become too heavy for Wray due to health issues, and in came the Supro Duo-Tone that would appear on many of his recordings for the Swan label. Few guitarists would consider a '60s Supro to be an upgrade from a '50s Les Paul. But not everyone appreciates the Supro's unique sound.

Chicago's Valco company made guitars and amplifiers under a variety of names. (They made amps for Gretsch and Harmony, among others.) Their best-known guitar brands were Airline and Supro—affordable axes for players on a budget who still wanted to rock.

Supro's standard pickup was dubbed the Vista-Tone. It appears to be a humbucking pickup, but it's just an illusion—it's a single-coil dressed as a dual-coil. The Vista-Tone's internal configuration resembles that of the single-coil Gretsch Hilo'Tron, with magnets to one side of a single coil, separated from it by a steel "keeper." Its six pole pieces are height-adjustable screws. According to inventor Ralph Keller's 1952 patent, "An object of this invention is to provide a pickup device which establishes a magnetic field extending for a substantial distance along each string, with the magnetic lines of force lying substantially parallel to the strings for the major portion of said distance." The wide magnetic field spans the width of the housing, interacting with approximately two inches of the strings' length.

A second objective was to keep it cheap. In early versions the Vista-Tone's bobbins were cardboard, though Valco eventually switched to plastic.

These pickups have devoted followers. Luthier Paul Rhoney tried to convince Ken Calvet of Roadhouse Pickups to study Vista-Tones. "Paul kept bugging me," recalls Calvet. "I didn't have an original, but Paul found one for sale." Calvet was soon hooked. He reverse-engineered the design and launched a reproduction run within a few months.

Engineers have a good day when parts from one product can be repurposed for another. At Valco that meant borrowing parts from the already inexpensive Vista-Tone for an even less expensive pickup. That new pickup, a humbucker-size housing with a single attachment screw at its center, appeared in Supro's Kingston guitar. This "Kingston" pickup (Roadhouse's moniker, since Valco seems not to have given it an official name) moves the side-mounted magnets of the Vista-Tone to the center of the coil. There are no pole pieces, and there's less metal. The pickup's sound is closer to that of a Fender single-coil, and the design looks way cool.

But the Vista-Tone remains the star of the family. When pressed, Calvet describes the tone as a cross between a Strat and a P-90, though he says it breaks up differently when pushed: "There's more fuzz around the edges, though they sound good clean too."

Dan Auerbach of the Black Keys often plays a Vista-Tone-loaded Supro, as does Jack White.

Roadhouse has an array of Vista-Tone clips on their site (http://www.roadhousepickups.com/clips/).

Top: Photo courtesy of Ken Calvet/Roadhouse Pickups

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TEISCO "Gold Foils"

Top: A 1960s Teisco SD-4L with four gold foil pickups controlled by tape-recorder-style rocker switches.

Bottom: A modern gold foil reproduction by Jason Lollar.

There's a chance that some of you older players haven't tried a set of gold foil pickups since the Eisenhower administration. It's well worth giving them another listen.

Two original manufacturers are associated with pickups nicknamed "gold foils": Teisco and DeArmond. Both types have followings, though the pickups differ in construction and sound. Here we focus on the Teisco version.

Something interesting happens when you start to write an article on lesser known pickups: Ry Cooder's name comes up a lot, as does his "Coodercaster," a Stratocaster with an Oahu (Valco) lap steel "string-through" pickup at the bridge and a gold foil at the neck.

Around 1964 young Cooder picked up a Stratocaster from the Fender factory, but after several years he became dissatisfied with the sound of the stock bridge pickup for slide work. His solution was to install a steel guitar pickup. Years later pickup maker Lindy Fralin suggested using a Teisco pickup at the neck. Cooder's combination of flatwounds and pickups inspired many imitators, and those near-forgotten Teisco pickups acquired new respect.

You don't have to play like Cooder to get good results from this pickup. According to pickup manufacturer Jason Lollar, gold foils are shockingly versatile. He says that customers had asked about them for years, but that he only got serious about them when Stooges guitarist James Williamson gave him one to check out. Now Lollar makes an excellent reproduction. It wasn't easy, he says: "There were a lot of parts that needed to be made." Lollar and his team first auditioned their reproduction in an inexpensive Epiphone Les Paul. (According to Lollar, "Gold foils make cheap guitars sound great.")

The pickup actually uses cheap *rubber* magnets—think refrigerator magnets, only fatter. Their wire is 44-gauge, with around 30 percent fewer turns than a Strat pickup. The bobbin is a mere 1/8" tall. But there's a lot of steel inside, which expands the magnetic field. The pole pieces are adjustable screws to the side of the coil.

Viewed from the top, the coil and magnet sit between six big, round holes and two long "racetrack" holes. The screws are "north" of the coil, which means they sense more of the string, providing strong lower overtones. This wide frequency response helps gold foils sound loud and un-muddy.

Gold foils sometimes need shimming to achieve proper height and output, and Lollar's website, lollarguitars.com, has very useful instructions for doing so. As with Gretsch Hilo'Trons, you shouldn't simply adjust the pole pieces—it's better to adjust the height of the entire assembly. Lollar also makes a version that fits in a P-90 housing.

Curtis Novak tends to prefer DeArmond gold foils because their massive steel plates provide a bigger magnetic field that brings in more of what he calls "string wag." Like the Teisco version, this is a big departure from a Fender-style single-coil, where, notes Novak, "there's nothing going on outside the rods."

Want to hear more? Jason Lollar recommends keeping your eyes trained on the guitarists in rowdy rock-band scenes from obscure 1960s biker movies. Apparently they often play guitars with gold foils. Who knew?

Special thanks to Jason Lollar, Derek and Seymour Duncan, Tom Jones, Jim DeCola at Gibson Guitars, Barry Gibson at Burns London, Curtis Novak, Frank Meyers, Ken Calvet at Roadhouse Pickups, and luthier Paul Rhoney for their help with this article.

Top: Photo courtesy of Frank Meyers/DrowningInGuitars.com

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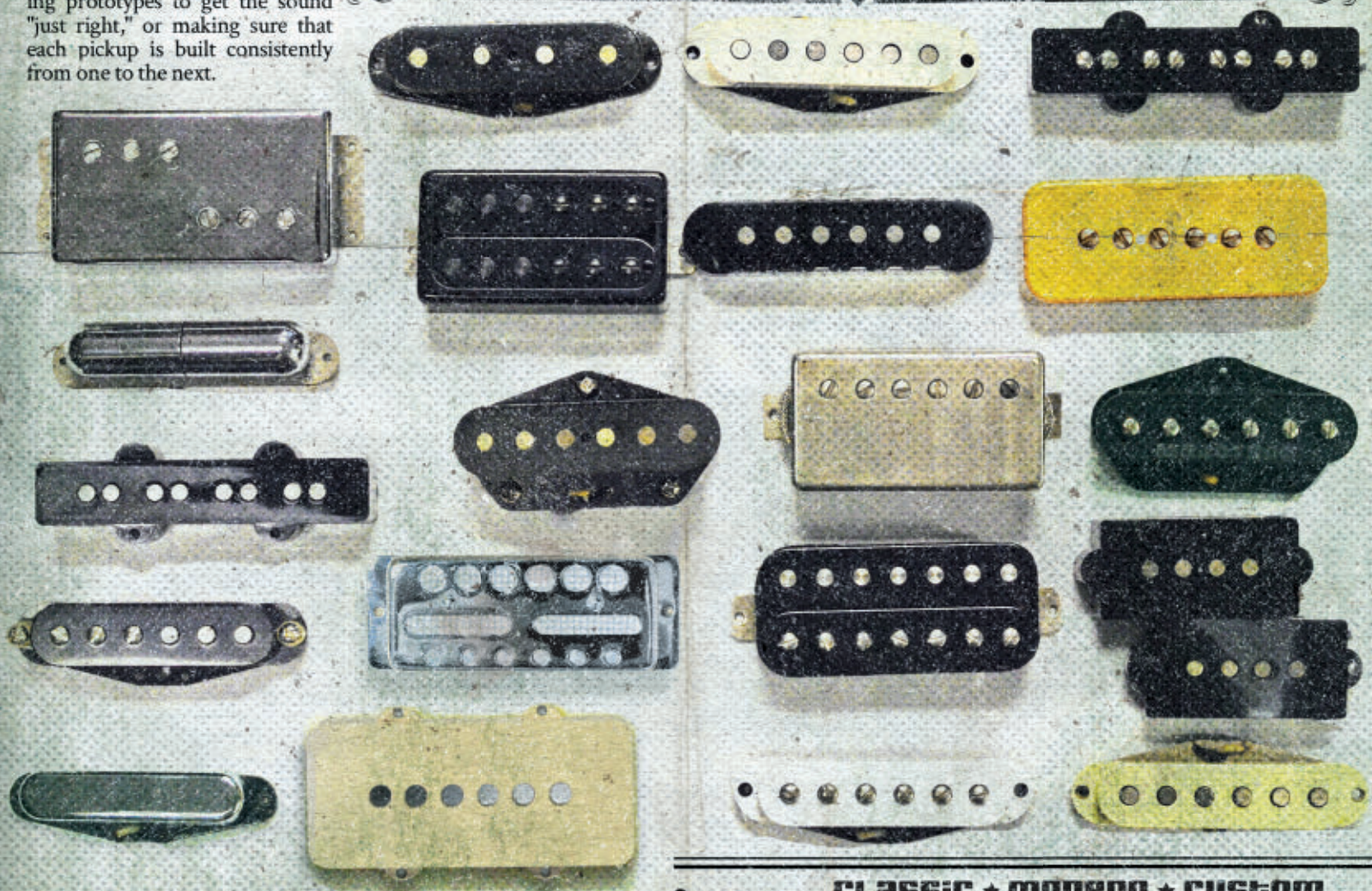

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EMILY REMLER

A nice New Jersey girl changed jazz guitar forever by getting so good that people *had* to listen to her unleash her inner Wes Montgomery.

BY TZVI GLUCKIN

Photo by Franz Schellekens / Redferns / Getty Images

In 1935, Benny Goodman hired Teddy Wilson as his pianist. That was a big deal: Benny Goodman was white, and Teddy Wilson was black. In those days, jazz, like everything else, was segregated. Goodman was a pioneer who felt racism had no place in music, and his integrated band was a first. It launched the careers of Lionel Hampton and Charlie Christian. It changed music in America. And while it wasn't the end of racism in jazz, it was a beginning.

Sexism was a different story. Women were accepted as singers—Billie Holiday, Ella Fitzgerald, Sarah Vaughan—but not as instrumentalists. It just wasn't done. Many musicians, fans, record labels, critics, and others didn't take female musicians seriously. This attitude was prevalent in the 1970s and '80s and—let's face it—it hasn't entirely gone away.

But no one told that to Emily Remler.

Remler was a guitarist. She was a great jazz artist. She was fearless and assertive. And she was gaining acceptance and prominence when she died in 1990. She was only 32.

Starting Out

Remler grew up in Englewood Cliffs, New Jersey. She started playing the guitar at age 10 on her older brother's cherry-red Gibson ES-330, the guitar she would use for most of her professional career. She learned simple folk tunes, Beatles songs, and Johnny Winter solos note-for-note, but it was just a hobby. She wasn't serious yet and had other interests, like sculpture and drawing. Remler was sent to a private boarding school in Massachusetts to finish high school. She graduated young, at 16, and applied to music and art schools. She got accepted to one of each: the Berklee College of Music and the Rhode Island School of Design. She had to decide: music or art?

She chose music.

She told an interviewer for *Down Beat* magazine in 1985, "I was so frustrated with art. I couldn't get it the way I wanted it. Music, at least you get more chances and a little more time and have the companionship of the other musicians."

Photo by Ed Deasy

A LESSON IN COOL

Emily Remler had a deep and intense harmonic sense. She had advanced knowledge of chords and how they worked. That, combined with years of listening and transcribing, gave her formidable ears and chops, particularly when playing changes.

One tool in her arsenal was using the jazz minor scale starting from the fifth of a related dominant seventh chord. For example, take a G7 chord: The root, third, and seventh are G, B, and F. Some would recommend using the G Mixolydian mode when soloing over G7. But G Mixolydian can be boring, lacking tension and color, whereas the D jazz minor scale includes chromatic tones full of tension and color.

There are three basic types of minor scales:

Natural minor (in D it would be: D–E–F–G–A–B♭–C)
Harmonic minor (a minor scale with a raised 7th: D–E–F–G–A–B♭–C♯)
Melodic minor in D (D–E–F–G–A–B–C♯)

In classical music, the melodic minor scale is different ascending and descending (the 6th and 7th notes are only raised on the ascent). In the jazz minor scale the notes are raised both ascending and descending. Here are the notes of the D jazz minor in relation to the chord tones in a G7 chord:

D (5th) E (13th) F (7th) G (root) A (9th) B (3rd) C♯ (♯11) D (5th)

Notice that you get the primary chord tones (root, third, fifth, and seventh), the basic tensions (ninth and 13th), plus the ♯11, which provides what Remler called, "that Lydian spice." Plus, because you are thinking in D, you're not tempted to resolve to the root.

She wasn't that good when she got to Berklee, and jazz was an alien art form. Miles Davis and John Coltrane were not on her radar. But Berklee was a diverse place, and jazz was more than Coltrane and Miles. She heard Paul Desmond, Pat Martino, and Wes Montgomery. That was more her speed—she loved it and became hooked.

Remler finished a two-year degree and graduated at age 18. She still wasn't much of a guitarist (at least that's what she said in interviews) but she'd learned a lot about music, including harmony, reading, and keeping time.

"[My] teacher told me that I had bad time. I rushed. I went home crying. Crying. But I bought a metronome. I worked with the metronome on two and four. I practiced with that thing and nothing else behind me," she said in the same 1985 *Down Beat* interview. She worked hard at it, and eventually great time—her ability to swing—became a hallmark of her playing.

Her boyfriend at the time, Steve Masakowski, was from New Orleans, and they decided to move there. But she wanted to spend the summer practicing in New Jersey first, so she rented a room on Long Beach Island for eight weeks and worked on chord theory and soloing. She quit smoking. She lost weight. That's where she learned how to play.

The Big Easy

When Remler moved to New Orleans, she got to work. Reading music got her a lot of gigs: hotel shows, weddings, anniversary parties, rhythm and blues gigs, jazz gigs, and all-night jams with the old-timers on Bourbon Street. She gigged with Wynton Marsalis and Bobby McFerrin. She backed up singers. She supported big names when they came to town: Robert Goulet, Rosemary Clooney, Nancy Wilson. Wilson took her on the road and brought her to the Lincoln Center's Avery Fisher Hall. Remler was a big fish in a small pond, and because she could play *and* read, she was a first-call player in New Orleans.

Then Herb Ellis came to town, and Remler had to meet him. She had guts and ambition and was able to finagle a meeting. They played all afternoon. He was impressed.

In 1978 he invited her to play the Concord Jazz Festival along with Barney Kessel, Cal Collins, Howard Roberts, Tal Farlow, and Remo Palmier (the group was called "Great Guitars"). A few years later Ellis told *People Magazine*, "I've been asked many times who I think is coming up on the guitar to carry on the tradition and my unqualified choice is Emily."

Remler was only 21, but the opportunity launched her career, and she was now in the big leagues. She impressed Carl Jefferson, president of the Concord jazz label, at that gig, too. He didn't offer her a recording contract on the spot, but she was on the map.

She went back to New Orleans, put together a quartet, and worked. She only

HALLMARKS OF EMILY REMLER'S STYLE Keeping Time

Jazz writer Gene Lees said, "[Emily Remler] was an extraordinarily daring player, edging close to the avant-garde, and she swung ferociously."

Remler's incredible sense of time became a hallmark of her style, but it wasn't "natural." When she was a student at Berklee, her teacher told her she rushed (pushed the tempo). It broke her heart, but she got the message and bought a metronome. How she used the metronome varied depending on style, but for the most part, she set the metronome to click on the second and fourth beat of each bar. Two and four, the backbeat, are usually played on the high hat in jazz or the snare drum in rock. Internalizing the backbeat is key to developing a solid rhythmic sense.

To mimic Remler's method, set your metronome to a slow setting—for example, 60 beats per minute. It is important to start with a slow setting because each click represents two beats. (At a setting of 60 beats per minute, you're really playing at 120.)

Once the metronome starts its click, your ear may hear it as the downbeat—that's natural. Start counting, but start with two, and make sure your count is in double time, with two numbers per click.

Even if you're counting the right numbers, it may take a while to feel it correctly. Try putting an accent on one. Either say it louder, or tap your foot on that beat only. Do that until you feel the one as one and the two as two.

Practice everything with your metronome clicking on two and four: scales, funk grooves, changes. It will change your playing and do wonders for your time.

One note: Make sure you use a boring, old-fashioned metronome that makes the same sound for every click. Metronomes that make a different sound to indicate "one" are useless when trying to develop your time. (The irony.) Here's a link to a free online metronome: http://www.metronomeonline.com/

lasted another year there before moving back to New York, but she always valued her New Orleans time—it made her into a musician and helped her find her voice. "In New York, it's very serious. In New Orleans everybody jumps up and down," she told *Down Beat* in a 1982 interview. "There's an R&B kind of feeling. I sort of stole that rich culture and applied it to my own music. If I had stayed in Boston, I'd be playing 'Giant Steps' like a madman—like everybody else."

She returned to New York with earned confidence. She called up John Scofield and invited herself over. They jammed. Scofield introduced her to John Clayton. That introduction led to her first recording date: a session with the Clayton Brothers for Concord. That was enough for Carl Jefferson. He offered her a four-record deal.

She also met pianist Monty Alexander, who hired her to play guitar with his group. A romance ignited, and they were married. But the marriage only lasted two and a half years. "It was hard to be married and on the road," she told *Jazz Times* in 1988. "We had haphazard meetings. We had to get used to each other again." Their divorce was amicable, but it was still hard.

She told jazz writer Gene Lees, "After Monty and I were divorced I played great for a while on that pain. I really did. I also tried to destroy myself as fast as I could."

Accidental Feminist

Remler couldn't escape gender bias. On one hand it helped her career—she was a novelty. Women didn't play instruments. Some people were fascinated. In a way, it opened doors and got her gigs.

But often the mere fact that she was a woman was a handicap. The jazz world was rife with sexism. Critical fans sat in front of her, arms folded, waiting for mistakes—proof she didn't belong. Other musicians didn't take her seriously. She wouldn't get called up at jam sessions. She couldn't land pit gigs for Broadway shows. Drummers assumed her time was weak. Some of them treated her like a kid, as if they had to hold her hand. Other drummers bore a bad attitude, and she had to win them over. It was a never-ending battle.

"I still have to prove myself every single time," she told *Down Beat*. "The only thing is that I'm not intimidated anymore." She had an incredible attitude though—nothing was going to break her. She continued: "You don't get angry, you don't get bitter, you don't get feminist about the thing. You don't try to make a statement for women. You just get so damn good that they'll forget about all that crap."

She practiced what she preached and got good—*real* good. Dismissing her wasn't an option. Remler recorded her first album, a set of jazz standards, in 1981. Concord wanted it to be conservative, so it only featured one original composition. Her next album, *Take Two*, featured more original music, but was still straight-ahead. As she grew more confident, each subsequent record featured more original music. Her label gave her more leeway. Her recordings started to sound more like her live shows, and she didn't hold back.

Drummer Bob Moses (who now goes by Ra-Kalam) worked with Remler at that time. He told *Premier Guitar*, "Emily had that loose, relaxed feel. She swung harder and simpler." In other words: She knew how to groove. Plus, she wasn't a showoff. "She didn't have to let you know that she was a virtuoso in the first five seconds," he said.

Catwalk, her fourth album, was her pride and joy—or at least it was in 1988, when she spoke to the magazine *Jazz Journal International*. It featured only original music and emphasized what she considered her ability to write catchy, singable melodies.

As her tastes and influences evolved, Remler's musical lexicon grew. She didn't think John Coltrane was alien anymore. She explained her transformation on Swiss television, "I was so obsessed with Wes Montgomery that I had a picture of him on my wall. And for two years I learned a new Wes song every day. Now my idol is John Coltrane. Last year it was Egberto Gismonti. I give my loyalty and love to someone else each year. But Wes lasted two years."

Guitarist of the Year

Remler was on the move and making noise. In 1985, *Down Beat* named her Guitarist of the Year. She recorded *Together*, an album of duets with Larry Coryell, and toured with him. Coryell had a positive influence on Remler: He jogged every day and took vitamins. He was the epitome of the modern musician. "The jazz musician in the dark barroom–that image is gone," Remler said of him in an 1988 *Jazz Times* interview.

"I may look like a nice Jewish girl from New Jersey, but inside I'm a 50-year-old, heavyset black man with a big thumb, like Wes Montgomery." —Emily Remler

Remler didn't rest on her laurels. She expanded her pallet. She learned different styles and grooves. She dove deep into Latin rhythms. Her incredible work ethic was evident early on and remained a constant. In a 1981 *Guitar Player* interview, Remler told writer Arnie Berle how she prepared for her first gigs with Herb Ellis: "When I worked with Great Guitars (Herb Ellis and Charlie Byrd) I bought their records and learned all three parts, because I wasn't sure which one I would have to play."

She wasn't just learning tunes either. She developed a way to transcribe solos that worked for her. She didn't transcribe every single note, but learned phrases and fragments that captured the solo's essence. For the rest, she used her imagination. "My brain is like a computer," she told *Down Beat* in 1985. "You put some data in and you get 500 variations."

Her practice regimen wasn't a regimen *per se*. Jamming worked best. She made a habit of recording backgrounds and working with a metronome. (These were

the days before looper pedals. She would have eaten a looper pedal for breakfast.)

In 1988, she recorded a Montgomery tribute, *East To Wes*, a collection of standards and bop classics. She was established and mature. She had found her voice. Critic Leonard Feather noted in a concert review for the *Los Angeles Times*: "Remler at 31 has entered a plectrum pantheon that numbers only a few of her most talented elders: Joe Pass, Jim Hall, Kenny Burrell."

But perhaps her mastery was most apparent in a series of instructional videos she recorded. Her depth of knowledge was astounding, and even more impressive was her ability to explain difficult concepts in simple, easy-to-understand language. She was clear and articulate. The videos showcased her low-key, self-deprecating, North Jersey sense of humor. "Unfortunately I grew up in New Jersey and country music wasn't in my blood. I really can't give that my all," she quipped in one video. "I still have problems playing country music in a serious manner. But I did see *Coal Miner's Daughter* and I liked that. But…"

Tragedy

Few talked about Remler's drug use, though Gene Lees mentioned it in his book, *Waiting for Dizzy*, "The backs [of her hands] bore tracks—the scars left by needles, those wrinkled lines looking like tiny railroad tracks that I knew all too well from seeing them on Bill Evans." She called it a chemical shield: "[It] makes you not care if the guy in the front row doesn't like you."

Whatever the reason, drugs were something Remler did. There were periods when she was clean and periods when she wasn't. At one point she was addicted to dilaudid—she sweet-talked jazz-loving doctors into writing her prescriptions. In 1990 she was on tour in Australia. She took something—probably an opiate like heroin or dilaudid—and died. *The New York Times* obituary called it a heart attack. She was only 32.

"I may look like a nice Jewish girl from New Jersey, but inside I'm a 50-year-old, heavyset black man with a big thumb, like Wes Montgomery," Remler told *People Magazine*. She was talking about an aesthetic, a sound and style she aspired to. It was funny. But in reality, Remler *was* a nice Jewish girl from New Jersey.

She was positive. She loved music. Her appreciation for other musicians and styles was genuine. She heard a musician's personality in their playing. And she wasn't self-righteous—not about her art, not about her audience, and not about other musicians. According to Ra-Kalam Moses, "Humility and openness, that was her core."

Her focus was music. She had to deal with prejudice and stupidity, but she wasn't bitter. She just got good. She lived in a world that made gender an issue, so she proved that it wasn't. Emily Remler's legacy is not that she was a great woman in jazz. She was simply a remarkable musician.

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Prepping to Tour

BY PETER THORN

Your time has come again! It's always exciting, slightly anxiety provoking, and *busy*. For most of my touring career, I've worked with artists based in Los Angeles. As of late, I've found myself branching out by touring with international artists.

I had an amazing time last year playing with French pop-star Mylène Farmer. I essentially relocated to Paris for five months and it was a great experience, both musically and culturally. I'm headed to Japan this year to tour with Japanese rock-legend Tsuyoshi Nagabuchi. Touring always requires foresight and planning, but touring outside of the U.S. requires extra logistical preparation. So for this month's column, I'm going to detail what needs to be done *before* it's time to go rock.

Music prep. I'm a big fan of going into rehearsals well prepared. You want to show up on day one with a solid grasp of the music. This will make rehearsals flow smoothly and will allow you and your fellow musicians to concentrate on things like gelling as a band, and developing transitions and alternate endings. Rehearsals should be about taking the music to a higher place and building a show, *not* learning songs from scratch.

Study both live and studio recordings, watch live videos on YouTube or DVDs, make charts if necessary, and plan out what gear and tones you will use on each song ahead of time. I always program my pedalboard while I'm learning the songs so I'll have all my tones already dialed in prior to rehearsals.

Gear prep. Making sure your gear is maintained and ready for the road is imperative. If you haven't changed your amp's tubes in ages, it's time for a visit to your local tech. I like to start each tour with fresh tubes in my amps, and I *always* carry a spare set of matched power tubes for both of my PT-100 heads. I can just drop in the replacement set with no biasing required, because the tubes are matched to the set in the amp. Though I run a stereo-amp rig, I'm always covered if one head malfunctions because I can go to one amp in mono.

I bring lots of accessories including strings, capos, slides, picks, batteries, straps, strap locks, truss rod wrenches, etc. I don't want to worry about finding music stores on the road, so I stock up on whatever I'll need for the entire tour.

Lists are your friends, so make lists of everything you need to keep your entire rig functioning smoothly, and do it well in advance. I also suggest labeling and numbering your road cases clearly and legibly. If a cargo company is dealing with transporting your gear, you can give them a detailed list of your cases.

Visas for you *and* your gear. It goes without saying that you'll definitely want to check the visa requirements for the places you'll be traveling, *well* in advance of your tour (six months if possible). If you are a sideman like me, managers or promoters usually handle this, but invariably, some of the burden will fall on you.

I had to submit detailed personal info to management to start the visa process for Japan, and this was done a few months ago. I eventually received an eligibility document from the Japanese government that I then had to submit to the Japanese consulate here in Los Angeles, along with my passport. A week later I went to the consulate again and got my passport back with my Japan work visa. It seems that no two countries have the same procedures for securing visas, so leave plenty of time for snags and delays. The *last* thing you want is to have your tour derailed due to a problem securing the proper documents and/or work visas.

Your gear will need a visa too. This is also something usually handled by managers or promoters, but when gear moves from country to country, a carnet will be needed. It's a list of all the equipment that is being shipped, and is essentially like a passport for your gear. Countries want to know the models, serial numbers, and values of the equipment you bring in and out. So make a detailed list of all of your gear—including case numbers and the aforementioned information for each piece of gear—and submit it well in advance to management.

It's the little things. Want to make a good first impression when touring in a foreign land? Do some research on the customs and language before you go. While the French have a reputation for being snooty and rude toward foreigners, I found just the opposite to be true. I spent time learning some simple French phrases before traveling there and they were incredibly gracious and accommodating towards me. When people sense you have put in an effort to fit in and absorb some of their culture, they really appreciate it.

Next month, I'll be reporting from Tokyo. Until then, enjoy your summer and I wish you good tone!

PETER THORN
is an L.A.-based guitarist, currently touring with Melissa Etheridge. His solo album, Guitar Nerd, *is available through iTunes and cdbaby.com. Read more about his career at peterthorn.com.*

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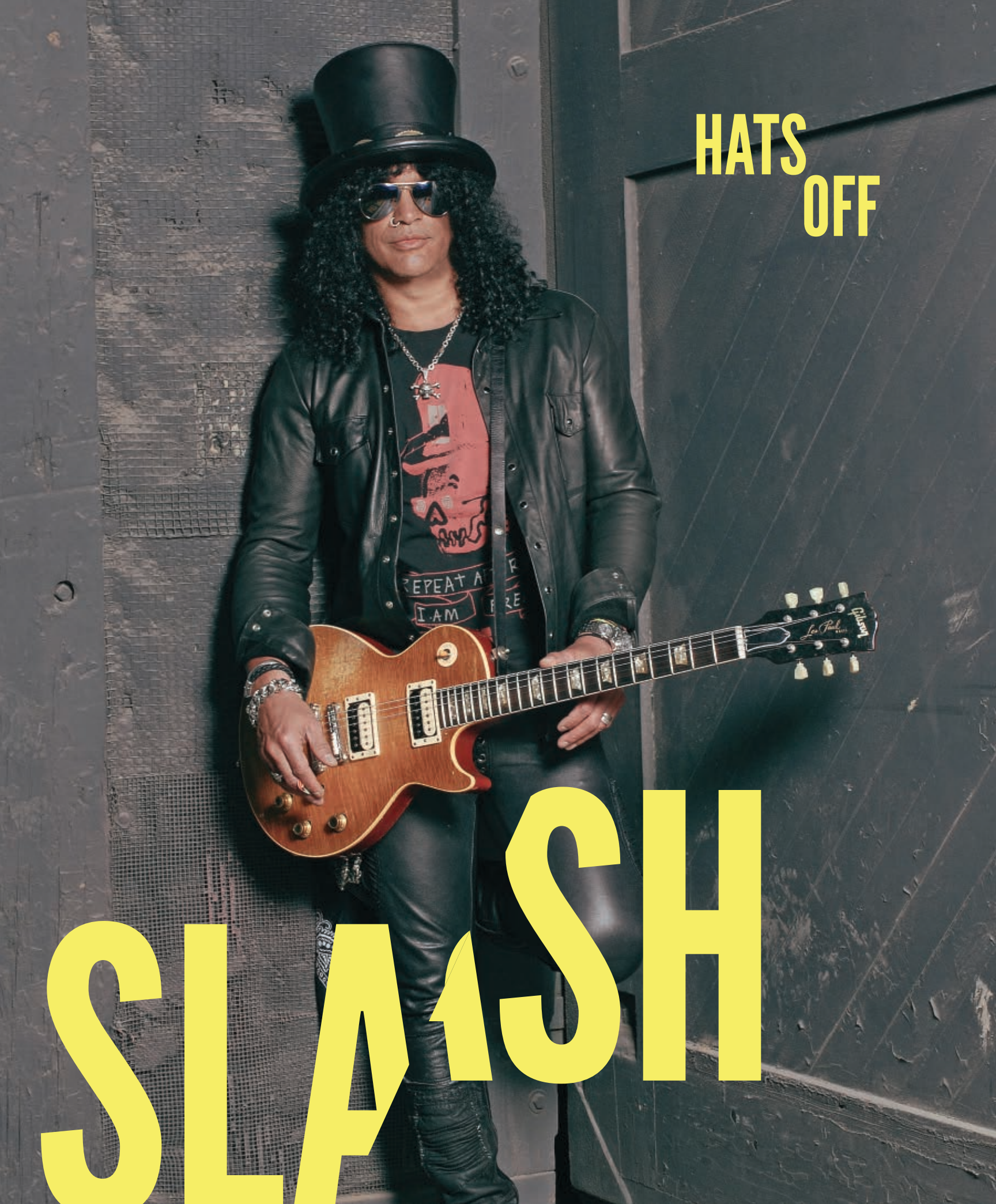

HATS
OFF
SLASH

One of the most beloved (and humble) guitarists alive opens up about capturing the humanity in music without effects, improvising off of himself, and finding someone who would push him in the studio for the first time in years.

BY TESSA JEFFERS

It was 27 years ago when Guns N' Roses' *Appetite for Destruction* hit the scene and a young Saul Hudson, soon to be known simply as Slash, relit the Les Paul fire during a time that other guitarists were wielding "super strats" and wearing spandex. Today Slash remains as popular as any guitarist (living … or maybe *ever*) and is one of the few who emerged from the '80s unscathed by the musical canon of that era: glitz, glamour, and glorified shred. While many of his peers have disappeared in the rearview mirror, Slash is still making relevant rock three decades later.

When GNR disbanded in the mid '90s, the top-hatted, transplanted Englishman with a mop of curls and a side-mouth smoke went on his own with Slash's Snakepit. Then in 2002 he formed the supergroup Velvet Revolver with ex-GNR bassist Duff McKagan and drummer Matt Sorum, guitarist Dave Kushner, and vocalist Scott Weiland. Slash's larger-than-life guitar talent and the music he made with GNR overshadows these later ventures, but he's been making music ever since and remains arguably the most career-successful ex-GNR member.

With his current band, the Conspirators—Myles Kennedy, Brent Fitz, Todd Kerns, and Frank Sidoris—it appears Slash has found something he's been looking for: a band that ignites together. "It almost sounds weird. Because you play around a lot, and you get known for playing with a lot of people," Slash says. "You throw some people together temporarily—that was the original premise—guys who I didn't know. And there was this amazing chemistry that happened, and when I tell people that, they're like 'yeah, yeah, yeah whatever.'"

This chemistry comes through on the group's new album, *World on Fire*. With its cohesive sound, this naturally flowing collection of 18 barnburners provides a foundation for Slash's extraterrestrial, high-flying tones and extensive soloing. It should come as no surprise that guitar plays a dominant role here: It has been at the forefront of Slash's life since he first heard Aerosmith's *Rocks* at age 14. How apt that Slash and his Conspirators just kicked off their release tour with Aerosmith.

When it comes to recording, the M.O. stays simple for Slash: commit live jamming to tape. Another crucial element was to collaborate with someone who knew guitar: Slash picked Michael "Elvis" Baskette to produce *World on Fire* because from the get-go, Baskette had the vocabulary to have a conversation about *tone*. "He was really, really passionate about guitar sounds, so that was it. I said, 'You're on!'"

Though *World on Fire* is the second effort from this lineup, Slash and the Conspirators are just getting started. "There's really sort of a thing happening with these guys that's developed over the last four years—it started with a spark and it's really settling into something."

How do you approach making rock 'n' roll? How do you keep it fresh, and how do you keep evolving?

That's really something that the listener has to come to a realization of. I can't say that I purposely set out to do this and this and this, so it's going to be modern. The approach I use is basically the same, I've altered it a few times over the years for certain situations, but I like to work quick. I don't like to noodle around in the studio—it does not fascinate me. Playing in a room as a band is first and foremost the only way to do any kind of proper rock 'n' roll recording. I've always found that playing live to tape has worked. I did a couple of Velvet Revolver records with Pro Tools, and the first one, which was a pretty popular record, has a tendency to sound very linear, which is what a lot of new rock bands sound like. There's no dynamics because people sit there and tweak everything to line up. And they don't realize it's taking the actual energy and humanity out of the recording. People who listen to it don't know what it is, but there's something they're not getting.

When we did that with Velvet Revolver it was 'cuz I sorta didn't know any better. I witnessed that happening in the middle of the night. I'd left the studio and came back to get my keys or something and found the engineer just tweaking everything. I was like, "*What* are you doing?" That was the first time I witnessed this in real time. Since then, I've been like, "No, I don't want to do it that way." So I stick to just recording as a band.

On our first record, *Apocalyptic Love*, the band was really developing, so I just recorded completely live to tape, no overdubs or any of that stuff. It was cool and we achieved it, and I got to see how good the band really was. This time around, I went back to recording live and doing my guitar in the control room and making sure it sounded right. I find that's the best way to do it. If anything sounds fresh, it's mostly from *not* trying to be retro.

You said recently in one of the Ernie Ball *Real to Reel* episodes that the studio is intimidating. How do you get in the zone?

Photo by William Hames / Atlas Icons

A young Saul "Slash" Hudson plays one of his first guitars, a late-'70s B.C. Rich Mockingbird, during a performance at L.A.'s Fairfax High School in 1982.

Yeah, the studio is a weird place. I enjoy being in the studio really because it's an opportunity to bring whatever it is that you've been jamming on to some sort of recorded fruition. But trying to get what you want in the studio and working with certain people is really sort of a crapshoot.

As soon as the red light's on, I tend to get inhibited, so I don't play the same way I would at rehearsal. It means you're overthinking it and you have to try to get past that, which takes a conscious effort. It's hard, so for me to actually find my comfort zone in the studio, and really play from that place where I would go in a live situation, it's just something that either happens or it doesn't, ya know?

It seems like you and producer Michael "Elvis" Baskette had a real synergy and he pushed you in the studio.

Let me tell you something about Mike. Last October when we first started the whole writing process, all the way through the holiday, I realized I didn't have a producer. Eric Valentine, who's awesome, was busy doing something else and that didn't seem like it was going to happen in the timeframe I was trying to do it in.

There were no new records I was excited about that made me go, "I want to work with *this* guy." But Alter Bridge had a new record and I thought the bass and drums on it were fucking amazing. I talked to Myles [Kennedy] about it and he said, "I've been working with [Baskette] for a while." But Myles has never pushed Mike on me, and he wouldn't give me anything to go on. Myles just said, "You've got to call him."

So I called Mike and we had a great conversation because he was a tape engineer at NRG [Recording Studios] back in the day. He has altered his style to adapt to the modern way people are recording, but he's really a tape engineer. So that helped. And then we had a conversation about guitars. I'm really sensitive at this point about guitar sounds because I've found that most of the people I've worked with don't really know enough—or want to know enough—about achieving a great guitar sound without using a bunch of stuff. That's the way everybody's used to doing it. It's like, we'll just use plug-ins and some Line 6 ... all the shit I would *never* use.

And so when it comes to just miking an amp and getting a great sound out of it, they're like a deer in headlights. It becomes a situation where I have to tell them what to do, and that doesn't really work because I don't know that much [*laughs*]. I'm not a great engineer, obviously because I don't love the studio

SLASH'S GEAR

GUITARS

"Appetite" Les Paul '59 replica (built by Kris Derrig)
Gibson 1957 Les Paul Goldtop Reissue
Gibson Slash Appetite Les Paul
Gibson Les Paul Junior
Gibson Melody Maker
Gibson Explorer
Gibson Joe Perry 1959 Les Paul (Seymour Duncan JB humbuckers)
Gibson Les Paul 12-string
Gibson ES-175
Gibson ES-135 (owned by producer Michael Baskette)

AMPS

Marshall JCM800
Marshall SL5 signature combo
Marshall AFD1000 signature head
Marshall cabs

EFFECTS (live)

Dunlop SC95 Slash Cry Baby Classic Wah
MXR SF01 Slash Octave Fuzz
Dunlop HT1 Heil Talkbox
Whirlwind Selector A/B box (for Heil HT1)
Boss DD-3 Digital Delay
MXR Analog Chorus
MXR Stereo Chorus
MXR Stereo Tremolo
MXR Boost/Line Driver
MXR Phase 90
MXR Smart Gate
Boss TU-2 Tuner
Dunlop DCR2SR Cry Baby Rack Module
Shure UR4D Wireless
Ebtech HE-8 Hum Eliminator
Whirlwind MultiSelector rackmount switcher

STRINGS & PICKS

Ernie Ball Power Slinky (.011-.048)
Dunlop Tortex 1.14 mm

Photo by Marc Cantor / Atlas Icons

that much. Like I said, it doesn't fascinate me. It's just not my thing.

We had a really great time with [Baskette] and he's a really hard worker, which is great 'cuz I'm a hard worker—everybody in the band is really fucking focused.

So how did you approach the guitar sounds with him?

We went to his studio in Orlando. All my stuff is pretty spontaneous in the sense that whatever I was doing in rehearsal, that first thing that fits, melodic-wise and whatever, I tend to just stick with 'cuz that's my gut feeling. Usually the first few takes is what's going to be on a record, but he pushed me past that, to the point where I was improvising off myself. Whatever it was I had, he kept having me play until I left that behind and started doing other things with it. And it was really cool because no one had had the patience or wherewithal to do that with me, or get me to listen to them either. After a couple of takes you lose the spontaneity, but if you keep going, the spontaneity comes back because you're not doing what you thought you were going to do.

That was probably exciting for you.

Oh yeah, man, I had a blast! As far as guitar sounds are concerned, I just loved that he would go above and beyond the call of duty—even to the point where I was fine and he'd go, "No, no. We're going to keep going."

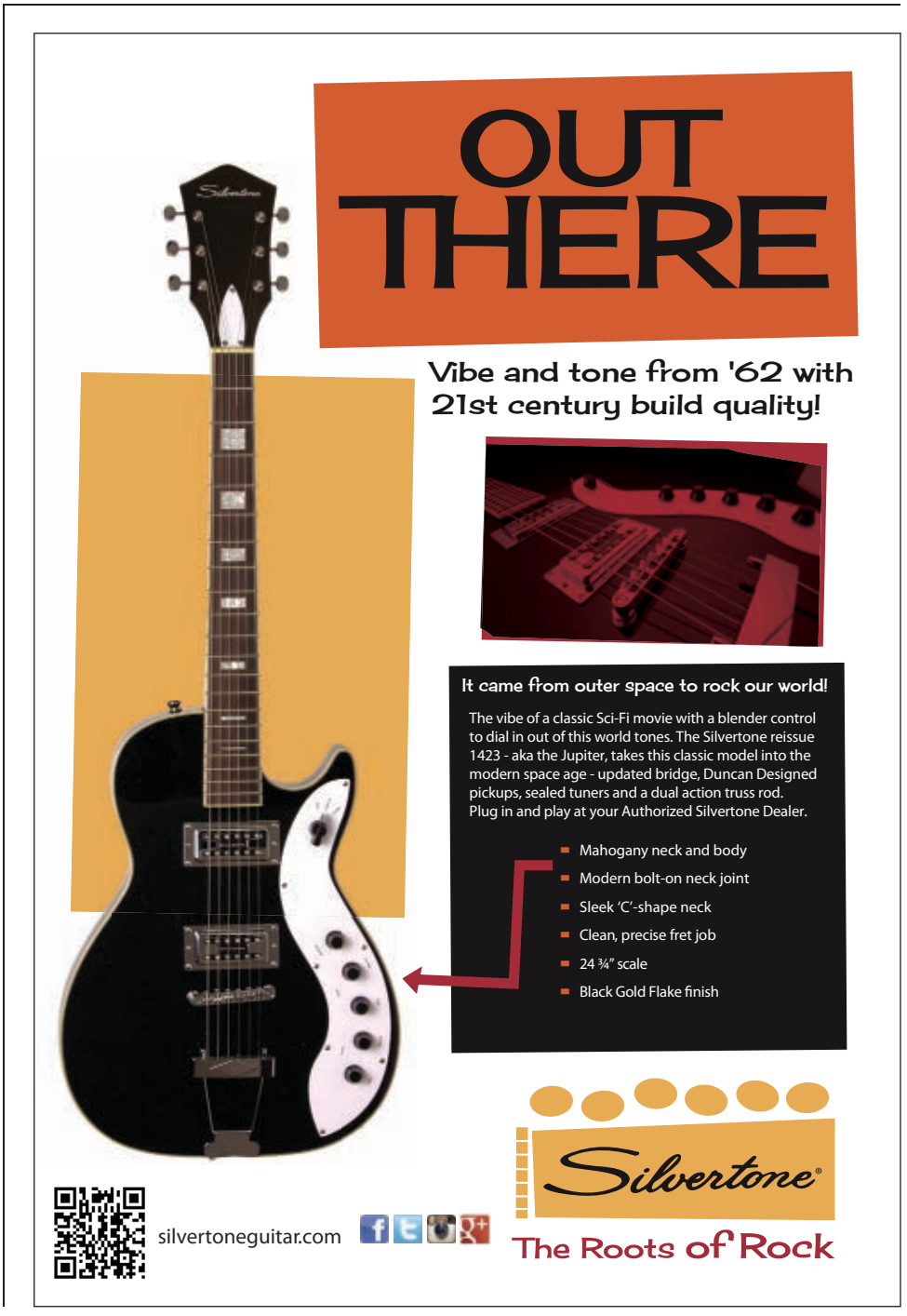
What guitars were you working with in the studio?

I only took eight guitars down there, stuff that I knew I was going to use: a few Les Pauls, an Explorer, and a 12-string. I had a vintage Junior and a reissue that worked out for some stuff, but the reissue sounded better. I didn't have a lot of variations on a basic sound. When I started doing other tones, I wanted to get away from the stock Les Paul sounds I use so it didn't sound like Judas Priest. Mike had an ES-135 I checked out and it sounded amazing. Within a couple days I learned the next step up from that was the ES-175, and Gibson sent one over and that sounded fucking amazing. Those were the main speaker left/stage right guitars I was using.

So did you play all the guitar parts on the album or did Myles play some?

I played all of the guitars, speaker left and speaker right. He played the other guitar parts on the *Apocalyptic Love* record—he's a phenomenal guitar player. I mean he was actually a guitar teacher, let's put it that way. So he knows stuff. I don't know what I'm doing—he knows what he's doing. Technically I don't know a lot, you'd be surprised. He knows all kinds of scales and picking techniques, and every so often I'll go, "What was that?" And he'll show it to me, I'll incorporate it in something I do for a minute, and then I'll never use it again [*laughs*].

When we did the *Apocalyptic Love* record, he was on the road with Alter Bridge, so when we started recording he came in at the last minute and had to learn all the songs on guitar really fast. That cut into his writing and vocals, and so he was very uncomfortable with all of that. So on this one he said, "You play guitar



Slash grips his Kris Derrig Les Paul replica (right), which was the inspiration for his signature Gibson Appetite Les Paul model (left).

and let me just deal with vocals." So I said, "Cool—more for me!"

Tell us about your songwriting process.
I write in the moment and never look at anything through a past perspective. I write when we're on the road, in the dressing room, or I'm in my hotel room, and I keep my phone close by and I just play all day. And if I stumble across anything that I think is cool, I'll keep playing it until I develop it and record it onto my phone—it could be 30 seconds or two minutes or whatever. By the end of the tour, I've amassed ideas. After the tour is done I decompress for a few weeks, and then I'm itching to go back to work and listen to all those ideas.

How easily do those parts come to you?
The thing is, they come easy because you're not trying. That's the big thing for me. Because if I sit down and focus on trying to write something, then it becomes really difficult. I wouldn't be able to write in the studio. It might just magically happen, but nine times out of 10 it won't. Then you just sit there and start beating yourself up for not being able to create in the moment.

You're known for your trademark sound. When you wail on a guitar, people know it's you. Can you offer any advice for young players trying to find their voice?
Any passionate guitar player, a kid that's going to pick it up and just loves the instrument and the way it sounds, even if they're just starting out, they're usually inspired by something, a handful of people, or a style. You just have to pursue that.

What turns you on about guitar?
The funny thing about it for me is I was raised in a guitar-laden environment and never knew it. I was turned on to rock 'n' roll from the very get-go, because my dad and his brothers were all big rock fans and we were all living in England. All I heard was the Who, the Stones, the Kinks, the Yardbirds, and some Moody Blues in there. My dad said, "The most important part of the song is the guitar break." I was surrounded by that.

SLASH'S HOLY GRAIL GUITAR

Asked if he had to choose one guitar to play for the rest of his life, Slash answered without hesitation that it would be his Kris Derrig Appetite Les Paul, his go-to guitar since 1986. He's used it on every recording since *Appetite for Destruction*.

"We're like an old married couple—she's very temperamental," he says. "You have to work to keep her in tune and I've had to replace little parts, but overall that's where I can easily get my sound."

So what is it about this machine? "I can do whatever it is I do on whatever Les Paul, but if I A/B that guitar with any other guitar, it has its own personality."

He stopped taking his girl on the road in 1988, but she's still his No. 1 studio beast. For touring, he has his Gibson AFD Les Paul Standards. "I beat the shit out of my guitars," he says of his signature model. "It's the same guitar but new, and I can beat them up."

There is some controversy surrounding the history of this Derrig LP replica [see "The Legend of Slash's Appetite for Destruction Les Paul," *Premier Guitar*, October 2010], but Slash maintains that it really is his one true love.

YOUTUBE IT

Slash closes out a show with his favorite song to play live, "Paradise City," with Myles Kennedy and the Conspirators in 2011 as part of Slash's solo live album *Made In Stoke 24/7/11*. It was recorded in Stoke-on-Trent, England, where Slash lived as a child.
YouTube search term: "Slash–Paradise City Made in Stoke"

Photo by Neil Zlozower / Atlas Icons

Then I moved to the States and both of my parents were really big music people. I loved going to rehearsals and recording sessions of people that they were working with. Or going to gigs and that minute where people get up and pick up their instrument was a *huge* turn-on for me. The best part of the show was that—before the first song.

I always dug guitars but I didn't aspire to be a guitar player. It wasn't until I put a couple notes together that sounded like a blues lick, then it was like the heavens opened up, it was like "ahhhhhh." I'll never forget that moment. What I was looking for was the British guitar that turned me on all my life until that point. It was Aerosmith at first, that *Rocks* record of theirs really spoke to me and set me off in a certain direction. Simultaneously it was Jimmy Page, Eric Clapton, Billy Gibbons … anybody who had a personality in rock-style guitar playing—that's what really turned me on and that's the direction I went. And I never faltered from that, that's why I never became Randy Rhoads or any of those guys, especially in the '80s.

No, you're Slash.

[*Laughs.*] But at the time I was the only guy that started doing that, everybody was on this sort of '80s guitar pyrotechnics wave kinda thing. But I was still really dialed into Mick Taylor and Keith Richards and stuff like that.

If you were banned from using a Les Paul, what would you play?

If I couldn't play a Les Paul, then I might pick up a Melody Maker or a Junior or something lighter like that with humbuckers, or a Telecaster with humbuckers in it. There's definitely something about Les Pauls and humbuckers and that warm, heavy, midrangey sound that attracted me when I was first starting. My first guitar was a Memphis Les Paul copy, so I automatically went there. Then I went through a whole period of trial and error with Strats, B.C. Richs, Telecasters, and other odds and ends, and ended back at Les Pauls.

Did you play your Appetite Les Paul in the sessions for *World on Fire*?

Most everything panned over to the right speaker and in the middle is my [Kris] Derrig guitar, and I also used a goldtop '57 reissue for that creamy stuff where it's sustainy smooth where I turn the tone down.

Can you give us an example of where you're playing the goldtop?

The guitar solo on the very end of "The Unholy" and also on "Battlefield."

If your music had an odor, what would it smell like?

[*Laughs.*] That's the most original question I've heard in the last 30 years. It would probably be like barbecue sauce or something. It couldn't be fresh cut grass and it wouldn't be fresh flowers or raw meat or anything. It would have to be something spicy and something sweet but something funky …

If you were stuck on a desert island and had to choose between your hat and your guitar, which would you choose?

Oh, it'd be my guitar—come on!

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SONGBIRDS AND VINYL

Brian Setzer *reveals how blasting Zeppelin LPs with his daughter inspired* Rockabilly Riot! All Original *—a prototypical rave-up with fun, beautiful twists.*

BY SHAWN HAMMOND

Illustration by Chris Farruggia

You never know quite what you're going to get when Brian Setzer comes out with a new album. Sure, you can bank on stellar guitar playing and the unmistakable tones of his iconic '59 Gretsch 6120, 6G6-B Fender Bassman, and Roland Space Echo. But otherwise it's a bit of a toss-up: Other than big, '50s-style hair and an orange hollowbody, Setzer's main trademark is his restless musical ambition and a penchant for styles that sometimes seem at odds. Remember—although he's the guy who spearheaded the early-'80s rockabilly revival with Stray Cats hits like "Rock This Town" and "Stray Cat Strut"—he's also the guy who sprinkled it all with punk, blues, New Wave, swing-jazz, Southern rock, country, and bluegrass seasonings. And that was *well* before he embarked on an even more ambitious solo career.

You could easily argue that Setzer's voracious appetite for musical adventure and growth is what keeps him relevant—it's the reason his repertoire feels like it's in constant bloom. But it's also been a bit of a thorn in his side. For starters, it *had* to be hellacious for the Massapequa, New York, native to figure out what to do after the rockabilly revival lost its mainstream steam in the mid to late '80s—the only guitarists who seemed to get attention were those who resorted to hair metal or, during the first half of the '90s, grunge. Consequently, Setzer's genre jumping in post-Cats years gave the impression he was frantically searching for a new, bankable identity. Solo efforts at Byrds-y 12-string Rickenbacker jangle mixed with drum machines were executed well enough, but the die was already cast: People knew him as "the Gretsch guy." Yet that sonic signature was too nostalgically narrow—and his skills and expertise too wide—for him to have kept selling millions of records.

Add to that the fact that Setzer has never resorted to flavor-of-the-moment gear tricks: He eschews pedals, and though he picks up a baritone or banjo here and there (or maybe tries an esoteric vintage amp for a song or three), it's pretty much just vintage Gretsch, Fender, and Roland. That means his guitar sound can seem stuck in time—albeit *gloriously* so to us fans.

But by the end of the Clinton administration, Setzer caught lightning in a bottle again. He not only made his teenage dream of fronting a 17-piece big band a reality, he also rejuvenated his career as the de facto ambassador of the late-'90s swing revival—with a rockabilly rave-up edge. Never one to sit and stew, Setzer has since put out albums of authentic early rockabilly, modern-ish rock 'n' roll with a Texas-boogie feel, traditional jazz instrumentals, classical-inspired big band, and film noir stuff, with the occasional nod to gospel and doo-wop thrown in for good measure.

But with *Rockabilly Riot! All Original*, his first album since 2011's *Setzer Goes Instru-Mental*, the Twin Cities Pomp is back to what put him on the map in the first place. *All Original* is chock-full of the twangin' slapback and thumping slap bass that Setzer fans tend to love most. As always there are twists, including rabblerousing piano work courtesy of Kevin McKendree on many tracks, but the difference between the diversity of Setzer's Stray Cats and early solo efforts—or even something as recent as his 2006 solo album, *13*—is that of late he seems to have truly mastered the art of seamlessly incorporating all these stylistic nods into the classic Setzer sound. Rather than feel like boredom-induced hopscotching, the cheeky Western vibe of "Calamity Jane"—which features funky clavinet, bouncy saloon-style piano, and a whimsical circus organ—comes across as classic Setzer having a hoot of a time in a cowboy hat. And the high-lonesome pedal-steel sighs on "The Girl with the Blues in Her Eyes" (played by session ace Paul Franklin) combine with a breathily intimate vocal performance and a gorgeously simple progression to produce one of Setzer's most beautiful and memorable songs since "Stray Cat Strut."

We recently spoke to Setzer about the making of *All Original*—including how his daughter's love of classic rock helped summon his "songbird" muse—and why he's never tempted away from his go-to gear.

Photo by Russ Harrington

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BRIAN SETZER'S GEAR

GUITARS
1959 Gretsch 6120
1956 Martin D-28

AMPS
1963 Fender Bassman head
'60s Fender 2x12 cab

EFFECTS
Roland Space Echo

STRINGS & PICKS
D'Addario EXL110 electric sets
D'Addario EJ15 and EJ17 acoustic sets
Fender medium picks
Custom Belden cables

It's been nine years since you released *Rockabilly Riot! Volume One*, the old-school covers album. Tell us how things unfolded this time around.
Well, first you have to start with a spark—I always say that the songbird has to come visit me, y'know? My daughter, who lives in Nashville, was listening to her iPod and she had the "peas" in her ears. I said, "Let me hear those." I pulled them out of her ears and thought it sounded like crap. She goes, "You just don't like the band!" I said no, that's not it. Then I asked her what she liked. She said, "I like Zeppelin." I pulled out an old Zeppelin vinyl record and put on "Immigrant Song." I have an old 1963 McIntosh tube stereo with studio monitors, and I blasted it. She went, "Oh my god!" So for Christmas, her mom bought her a stereo. She and her friends hunt down vinyl. That's the deal. She's got the first Clash album on vinyl. If I find something, I'll send it to her … the first Ramones record—she likes that kind of '80s punk and classic stuff, as well as new stuff. I thought, "How cool! Wow, I did something that my daughter thought was cool!" That's what got me going with the line, "She plays vinyl records..." then that riff came up. I go, "That's really catchy and simple!" That's the hardest thing to come up with—catchy and simple. That's what gets the ball rolling. Okay, I've got the riff, I've got the idea for the song—now let's *go*.

So "Vinyl Records" was the first song?
That was the first song I wrote for the record, yeah. After I'd written two or three songs, I thought, "This is a rockabilly record, no doubt about it!"

"Calamity Jane" has a familiar sound, but it's a bit of a new vibe for you, too. There's that funky clavinet part and sort of a whimsical circus-organ-type thing mixed in with the upright piano.
You actually listened to the record. Thank you! That's production—that's Peter Collins' ear there. My idea for that song was—of course, it starts out rockabilly—but then there's that lyric. I thought, "'Calamity Jane'—no one's written a song called 'Calamity Jane.' There's no band that calls themselves Calamity Jane." At least no one that I knew of. I thought it was a really great title. I pictured an old Western, an old saloon where they're playing poker and the piano player's playing. Peter Collins thought about putting in a clavinet to make it bounce. I thought when I wrote the song that the vocal line would pull it into something else, like almost a bluegrass thing. It's kind of a mix of genres, I guess. The circus organ was Peter's idea. He said that he heard, like, a calliope. He had this crazy thing in there, and it sounds like the man on the flying trapeze.

In your head you can almost see a monkey running around collecting change….
Yeah, it fit perfectly what I was trying to do. It gave it that saloon vibe, like an episode of *Gunsmoke* where the gunfight breaks out.

On "What's Her Name," there's a swampy vibrato sound on the guitar. Is that from a Magnatone amp?
That *is* a Magnatone amp. I wanted vibrato, and I had this old Magnatone

Photo by Russ Harrington

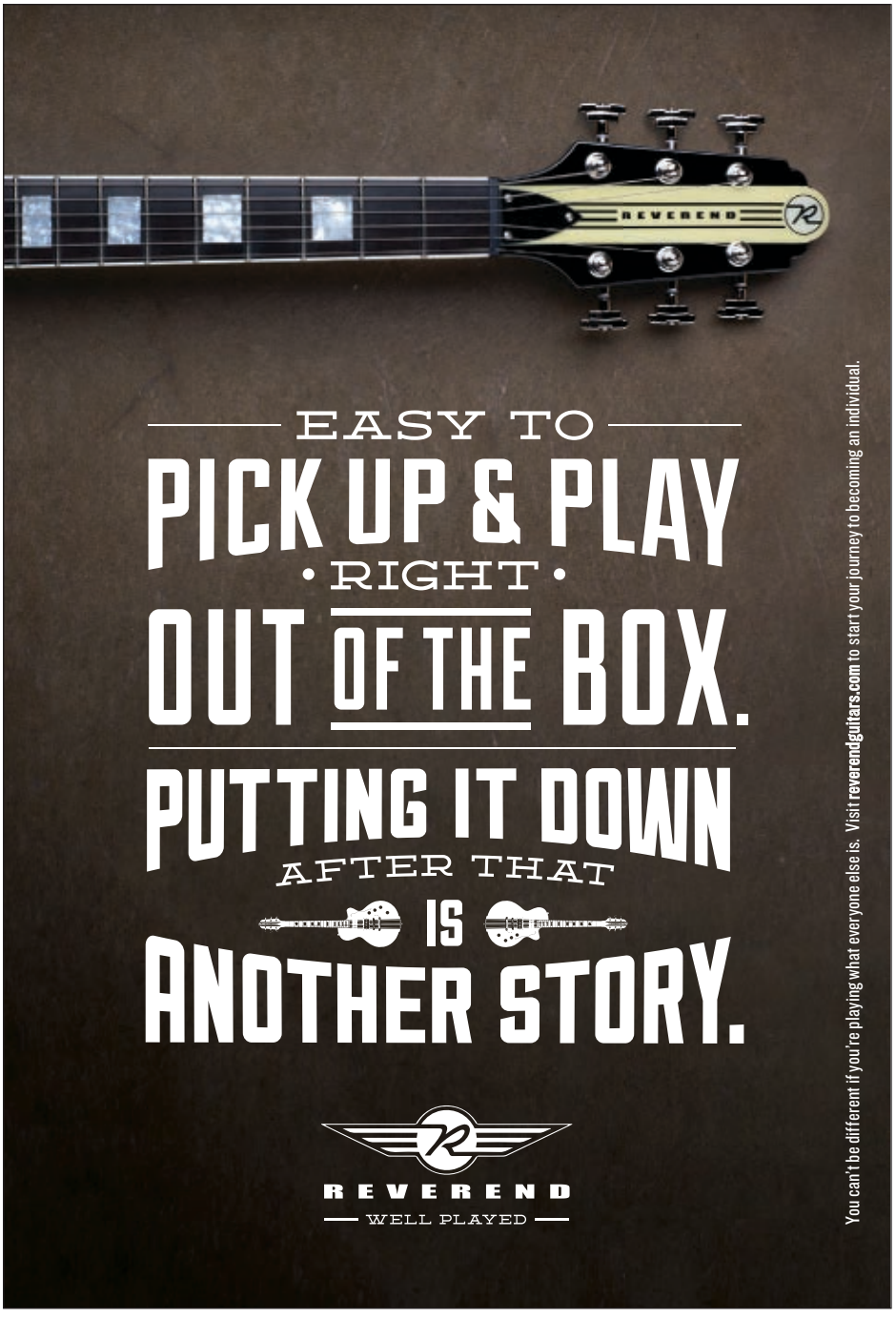
sitting there—like a late-'50s, Buddy Holly Magnatone. I don't use effects, except for the Roland Space Echo for the slap, so I wanted a good vibrato. I didn't bother with pedals. It just sounded so good. I set it up in the corner and plugged into that thing. That's the only change in amps I used—just the Magnatone for that one song.

Do you remember which model?
I have it right here, let's see … it's a beauty, I'll tell you that. It says Custom 280, high fidelity. So a Magnatone 280? I don't know much about them, except that I bought it years ago, and it's just been sitting here. I ought to use the damn thing.

While we're on the subject, you've always been quite adventurous with genres, but with gear you've pretty much been faithful to your Gretsch hollowbodies, your Bassman, and your Space Echo. Do you experiment much on the side with other gear just for the hell of it? So many guitarists are pedal junkies—are you at all interested in that stuff?
Here's the thing: I've tried all the pedals and stuff, but to me, for my playing—I'm not knocking people who use pedals, that's fine—but it turns into bells and whistles. "Hey listen—my guitar sounds like a machine gun!" It gets very old, very quickly for me. I understand the use for different styles of music. It just doesn't fit my style. It becomes very kitschy. Plus, it's just in the friggin' way. A pedalboard would just be a pain in the neck to have in front of me. I've tried different things. I had a couple of pedals once, and I can tell you one thing—you can take a Gretsch with *any* crappy overdrive pedal and make it sound like a Les Paul through a Marshall. But you can't get a Gibson to sound like that Gretsch. It doesn't. I've got a '59 Les Paul—and I'm keeping it to trade in so that my girls can go to college—but I can't get any music out of that. I understand that other people can. But I can make the Gretsch sound like that Les Paul. Not the other way around.

On the other end of the guitar spectrum, you seem to be able to get as much twang and snap and presence out of your Gretsch as a lot of players get out of a Tele. What's the secret?
Teles are a whole different animal. The Gretsch, to me, is halfway between a Gibson and a Fender. You can get both, but it has its own unique tone with those Filter'Tron pickups. I haven't been able to beat it. I think the 6120 is the best guitar ever made. It's got to be that hollowbody box. I can get any sound out of a hollowbody guitar. I don't know why. Even the new ones. I mean, they just play so well. If you can get a '59 6120 that actually works and plays in tune—you'll have to do a lot of work on it—that is the ultimate beast for me. It's not beatable. Like I said, I've got some old shit laying around. I've got a '56 Strat and a '59 Les Paul, and they do not touch a 6120.

Speaking of Filter'Tron-style pickups, you've kind of been the poster child for TV Jones Classics for a long time. Can you talk about your new signature pickups?



Tom [Jones] is really the guy responsible for it. I don't know what I'm looking at when I pull those things out! I might as well be looking at a part that goes into a tractor. Unbeknownst to me, Tom was swapping out pickups in my guitars—especially with the [Gretsch Brian Setzer signature] Hot Rod models. It's kind of hard to tell in the heat of the moment—each stage sounds different—but I picked up the guitar and thought it sounded different. I could hear the fingerpicking a little better. I'd go, "Has Tom been doing something to my guitars recently? These pickups sound fantastic on any stage." Tom said that he'd been swapping them in and out without telling me [see sidebar]. Don't ask me what he does, because he's kind of like a mad scientist, but I said, "Whatever you're doing, these are the ones we have to keep." I seem to be able to get more distinct when I fingerpick, and I'm getting more bottom end. The top is not as shrilly. It's not as muddy, yet they're still ballsy. Gosh—I sound like a wine connoisseur [*laughs*]. That's the best way I can describe them. They're a little different. The Classics still rock, though—they're still a great pickup.

TOM JONES ON SETZER'S SIGNATURE TV JONES PICKUPS

TV Jones mastermind Tom Jones—who's been rehabilitating old pickups and winding new ones for Brian Setzer for 20+ years—explains the process behind the Stray Cat's new signature pickups.

"It's my job to ensure that all of Brian's guitars play and sound the absolute best they can possibly be," says Jones, who debuted the pickups at the March 2014 Musikmesse gear show in Frankfurt, Germany. "A few years back, I found that a few of Brian's new Hot Rod signature guitars—which were sent to me by Gretsch to set up for his upcoming tours—sounded slightly brighter acoustically. So I decided to design a new pickup to bring out the best in these guitars—higher fidelity on top, with a slight punch in the bottom end—by using sonically unmatched coils and custom steel-alloy pole screws. The results were beyond my expectations."

Did you use any other unusual gear for the album?
I came off the road from the Christmas tour, and the '63 Bassman was perfect. The Space Echo didn't break. The Gretsch was broken in—just playing like nobody's business. I was like, "Don't fix it! I don't want the frets polished or the tubes changed. I just want to set it up and play." I find that, as much as I want to experiment and change—like using an old tape echo or a single-coil guitar—I always go back to that same setup. It's just my sound. When it's all working right, it's magic.

So was it the original '59 Gretsch from your Stray Cats days?
I've got a '59 that I've been using for probably 20 years. It's from the same year, maybe the same batch. I rarely take the Stray Cats one out. It got stolen for two years, so it's been through the mill. So I've got that '59, and I just recently got a new one that's hot shit—it sounds amazing! According to Jay Scott's book [Gretsch: The Guitars of the Fred Gretsch Company], it would be a 1960 model year, and it sounds incredible. I know Tom had to re-magnetize the pickup because they were a little weak, but whatever he did, it'll be tough to beat. I just got it and used it in Japan and—oh my god! But some of them have it, some of them don't. Even if it's made in 1959, it doesn't mean it's going to be a great guitar.

Otherwise, was it pretty much the usual setup—the Space Echo, Bassman with the 2x12, and the '59?
Yeah man, that's what I play.

What about acoustics?
I just got a '56 Martin D-28. That's my go-to—it's a cannon.

Let's get back to the album. "The Girl with the Blues in Her Eyes" is so laid-back with that Western shuffle and the lonesome steel guitar, yet it's really beautiful. Your vocal delivery is particularly touching in that one. How did that song come about?
Well, thank you. There's always this songbird that comes—I can't wait for him to come again. Usually [on a song like that], I'll start on a D and go to a G or something. But I went from a D to a Dm.

Yeah—I love how that minor chord is the key to the whole song.
Right? I went, "Ohhh, I haven't heard *that*." When you're given that little gift, you have to finish it. I did the same with G to Gm—"Oh my gosh, there's a song!" It happened like that. I wanted the lyrics to be touching, but not sappy. My friend Mike Himmelstein—I really respect his lyric writing—he gave me the song back, and it was great, but it wasn't called "The Girl with the Blues in Her Eyes." That was just in the lyrics. I said, "Oh no, Mike, there's our title." Rewrite it, and that's the title. He only had to change a few things, and then he came back with the lyrics. I knew when he did that we'd got it.

Were you interested in singing when you first started playing guitar, or did you do it out of necessity?
No, I didn't want to sing. I never wanted to be the singer. I wanted to be the guy standing in front of the amp so that I could let someone else have the spotlight. I wanted to fiddle with the amp and the knobs on the

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echo thing. I never wanted to do it, but we could never find a singer. I said, "Okay, I'll do it." I don't think I'm a great singer, but there was nobody around any better.

That's pretty inspiring because, although you're heralded most for your guitar and instrumental prowess, you're a master of multiple vocal-delivery techniques. For example, the tight, perfectly harmonized background vocals on "Let's Shake" and "Stiletto Cool" are as effective as anything else in giving those tracks that old-school vibe.

Well thanks. I'm lucky that I can hear those chords. If I have to do doubles, like the background vocals on "The Girl with the Blues in Her Eyes," I can hear those harmonies. And I can change with the next chord. I think that comes from just knowing the guitar. And I love the way Eddie Cochran and Joe Strummer sing as much as I do Elvis and Nat King Cole. They're two totally different styles of singing, so I guess you have to take what god gave you.

What advice would you give guitarists who are forced into the vocal spotlight like you were?

Well, first of all, it doesn't matter what style you're playing. You have to follow your heart. You've gotta do what you want to do—unless you're in a cover band that's making a steady paycheck where you're playing a bit of everything. I realize that, because I used to do that. I can't stress enough how learning to read and write music has made me the player that I am. I know that it's hard, and I sound like a teacher at school, but if you learn how to read and write music, it connects the dots. It can show you how to play through a chord passage, how to connect those two chords, how to get out of that pentatonic scale. I hear blues guys just doing that constantly. There are so many ways to make yourself unique. I don't care if you're playing heavy metal—if you learn how to read and write music, it connects the dots and it makes you one hundred times the player you were without reading and writing. It just does. Everything makes sense to you.

You've mentioned the songbird thing a couple of times. That's one of the toughest things for musicians, coming up with songs that really stick—that are worth something. How do you know when the songbird is really there and that it's not just some throwaway thing coming to you?

Well, that happens, but you've got to see it through. Sometimes I start with things that I don't know are that great. But I would say that you have to see it through. Finish it up. It might be the one. If it were easy, we'd have a thousand Rolling Stones around. It's hard. But that's the whole deal. It takes a long time. Don't be anxious about it. Just let it come, let it happen. Once you get the first thing going, once that songbird visits, things usually snowball.

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The ABCs of EQ

BY JOE GORE

This month's topic is EQ. I'd say we're opening a can of worms, except it's more like opening a shipping container stuffed with 10,000 worm cans.

It's tough to talk about—let alone teach—EQ techniques, because almost nothing is true 100 percent of the time. Take the common sentiment that the less EQ you use, the better: Yeah, that's good advice in most cases—adding overstated EQ tends to make tracks sound artificial and/or harsh. But what if "artificial" and "harsh" are the best expressive choice? What about all those great '60s guitars mixed with blistering high-end EQ? (Beatles and Byrds spring to mind.) Or parts engineered to sound as small and claustrophobic as possible? (Think Pink Floyd or PJ Harvey.) Or the eerie, not-found-in-nature equalization used by Nine Inch Nails and other noisemakers? There are countless exceptions to the so-called rules.

So instead of dealing in rules, we'll talk options. We'll cover some common EQ techniques, and then venture into more radical scenarios. But first, here's the quickest and dirtiest intro to EQ principles ever. (If you know this stuff already, you might want to bail now and tune in next month, when we get into some interesting case studies.)

Basic EQ lingo. To gain a thorough understanding of EQ, Google "equalization" (or "equalisation" if you're a Brit), the word from which the letters "EQ" are plucked. To gain a superficial understanding that can get you through most situations, read on!

- **Equalization** means adjusting specific frequencies within a sound—adding or subtracting treble or bass, or emphasizing/deemphasizing specific frequencies in the middle.

- We measure musical frequency—how high-pitched or low-pitched a sound is—in **Hertz** (**Hz**). The hearing range of a healthy young person is approximately 20 Hz to 20,000 Hz (20 kHz). If you're middle-aged, a Motörhead roadie, or both, your upper limit is probably much lower.

- Most musical sounds contain many individual frequencies. The lowest-pitched frequency is called the **fundamental**. The fundamental of a standard-tuned low E string, for example, is approximately 82 Hz, but there are other frequencies—**overtones**—that ring out far above the fundamental. If you filter that 82 Hz fundamental from a recording of that low E, the sound gets thin and tinny, but doesn't vanish.

- If you transpose a note up an octave, the frequency of its fundamental doubles. Drop it an octave, and the frequency is halved. Example: The 440 Hz tone we tune to is the same pitch as the A at the 5th fret of your 1st string. The A at the 2nd fret of the G string is 220 Hz. The open A string is 110 Hz. And a bassist's open A is 55 Hz, below the guitar's range. The fundamental of your high E string at the 17th fret is 880 Hz.

- Good news for old guitarists with bad ears: The frequency range of an amplified electric guitar extends from somewhere around 80 (depending on how you tune your low string) to somewhere around 4.5 kHz—typical guitar speakers simply don't transmit higher frequencies. You can have severe hearing loss and still perceive the entire frequency range of an electric guitar. The range of an acoustic guitar extends much higher, however.

- Loudness (or **amplitude**, to use the more science-y term) is measured in **decibels** (**dB**). Gently rustling leaves might measure 20 dB, while a jet takeoff can reach 150 dB. The threshold of pain is approximately 130 dB. The loudest rock concerts on record exceed it. In mixing, most EQ adjustments are of only several dB, though they sometimes reach ±20 dB or more.

- **Bandwidth** refers to the breadth or narrowness of the affected frequency range. Most guitar and amp tone controls have relatively wide bandwidths. Narrow bandwidths are sometimes called notches. Bandwidth is also called "Q."

- **Filtering** is the process of removing particular frequencies. A **low-pass filter** (**LPF**) cuts highs, letting lows pass through for a darker sound. A **high-pass filter** (**HPF**) does the opposite, cutting lows. A **band-pass filter** affects a particular "slice" of frequencies. The width of the slice varies according to the filter's—wait for it—bandwidth.

- An EQ tool that lets you select the target frequency *and* its bandwidth is said to be **parametric**. If you can select the frequency, but not the bandwidth (as on many active bass guitar tone controls), we call it **quasi-parametric**.

Take the EQuiz! After reading the above, do real-life EQ utterances like these make sense?

"My guitar sounds a little dark—can you give me +2 dB at 2.5k?"

"Yow! I get howling feedback when I step near the monitor. Can you notch out a little 1k?"

"The bass player just went into anaphylactic shock! If I drop my low E to A, and you pump up that 50 Hz, maybe no one will notice."

Cool. Now you can talk EQ like a pro.

EQ in your tone chain. Where do the EQ stages in your guitar's tone chain fit into the picture? Standard guitar tone controls are low-pass filters. Same with most distortion pedals that have a single

tone control. The nature of amp tone controls varies from model to model, but a high-pass bass control, a low-pass treble control, and a band-pass mid control is a typical arrangement. Many electric basses employ quasi-parametric midrange controls, with separate boost/cut and frequency-select controls.

In other words, the EQ controls on guitars, effects, and amps are wide-bandwidth filters that produce broad effects. In the recording/mixing realm, the tools tend to be more subtle and complex. If your guitar's tone knobs are butcher knives, studio EQ tools are scalpels.

Let's sharpen our scalpels.

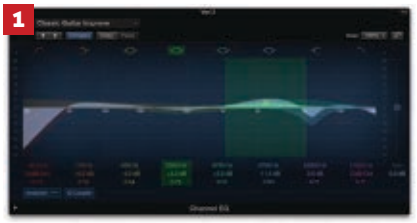
A typical EQ plug-in. The recording guitarist can choose from a vast array of hardware and software equalizers. But for all their variation, most provide the same basic functionality. I use the EQ plug-in from Apple's Logic Pro as my example here (**Photo 1**), but you'll find similar features on many equalizers.

This particular plug-in is an 8-band EQ, which means it offers eight independently adjustable filters, though you seldom need that many. Note the three rows of numbers below each color-coded band. The top one is the active frequency in Hz. The middle is the amount of boost or cut in dB. And the lowest number represents bandwidth.

Let's check out the effect they have on the sound of a distorted guitar track. **Ex. 1** has no EQ — it's the sound from the amp as heard by the mic. (If you're reading this in print, see the online version, which has embedded audio.)

In **Ex. 2**, I've activated the leftmost band, a high-pass filter that chops everything below a specific frequency. Here, set to 150 Hz (**Photo 2**), it thins out the sound in a big way.

The rightmost band is a low-pass filter that works the opposite way. Set to cut everything above 1.1 kHz (**Photo 3**), it makes the guitar sound dark and dull.



Bands 2 and 7 are shelving filters. They too affect everything above or below a particular frequency, but they can boost levels as well as cut them. Cranking the lows as in **Photo 4** creates a rumbling, bottom-heavy sound.

A high-shelving filter (**Photo 5**) is often used to broadly brighten a guitar track.

The middle four bands are the most powerful. These fully parametric EQ bands can cut or boost any audible frequency at any bandwidth. Set to a narrow bandwidth (**Photo 6**), they can add a honking, wah-like resonance.

Set to a wider bandwidth (**Photo 7**), it brightens a much larger swath of sound.

Finally, I've combined multiple EQ bands for a fairly typical crunch-guitar EQ adjustment (**Photo 8**).

Which sounds best? Heard in isolation, probably the first example, with no EQ. But guitar tracks seldom exist in isolation. The "right" setting *always* depends on the context.

JOE GORE *has recorded and performed with Tom Waits, PJ Harvey, Tracy Chapman, Courtney Love, Marianne Faithfull, Les Claypool, Flea, DJ Shadow, John Cale, and many other artists. Joe has written thousands of articles about music and helps develop music tools for Apple and other clients. He blogs at tonefiend.com.*

ERNEST RANG BRING THE

LIN RIDDIM!

The father of ska and reggae guitar reaches out to the people.

BY TED DROZDOWSKI

Ernest Ranglin is the Energizer Bunny of guitar. At age 82, the inventor of the mute-plus-upstroke "chank" rhythm that defines ska music has recorded a new album, *Bless Up*, that's a summation of his visionary intelligence as a musician and composer. His playing on the disc is relentlessly perky, propulsive, and lush, proving that his mélange of chops—a vocabulary of jazz, reggae, R&B, rock, world music, and classicism—is as fluent as when he was a pup in Kingston, Jamaica, in the '50s and '60s, when his performances helped take the city's famed Studio One sound around the planet and onto the international pop charts.

Although deep reggae and ska fans revere him, Ranglin's 11 original tunes on *Bless Up*—where he's supported by the core trio Avila—prove he deserves wider recognition. Always at the core of his playing, his jazz roots extend throughout the album. It's not just a matter of Ranglin's sound, which shares the warm rolled-back-tone-knob, flatwound strings, and humbucker tones of his contemporaries Wes Montgomery and Kenny Burrell (respectively born eight years and one year before Ranglin's June 19, 1932 birthday). It's the passion and taste he invests in cuts like "Follow On" and "Good Friends," where he leaps gracefully between chord melodies, languid single-note lines, and quick-burn solos.

The scope of Ranglin's writing is impressively wide-screened. His sweeping big band arrangement of the title track blends a reggae pulse with an orchestral sensibility similar to Duke Ellington's, and "Bond Street Express" pushes the envelope toward the textural, spaghetti western fare of Ennio Morricone. And yet, there's simplicity and an unhurried pace at the core of all this music that is pure Ranglin.

Photo by Jonathan Chi

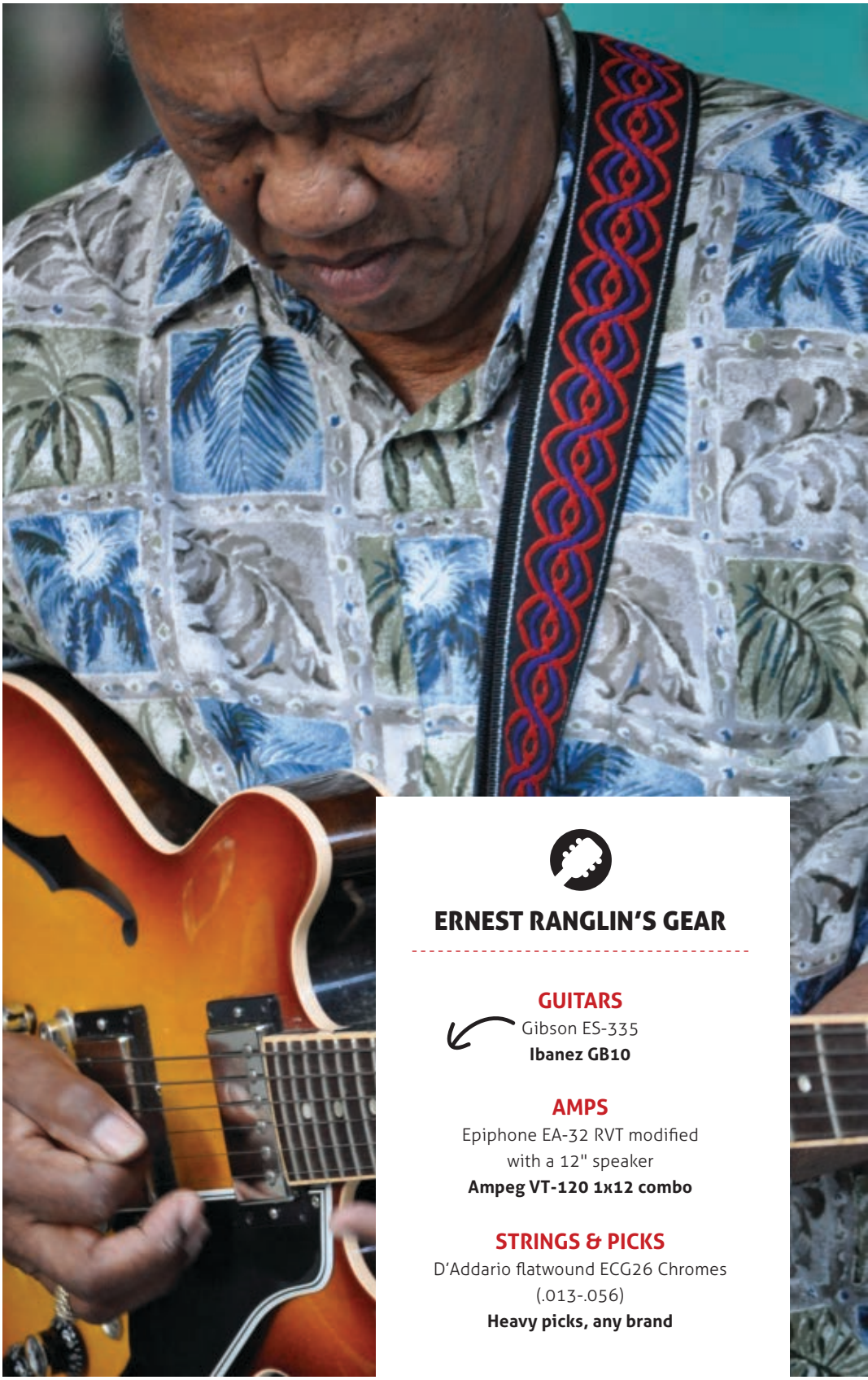
"The rhythm I developed is that shuffle rhythm, where the first beat [or downstroke] is actually on the second beat," says Ernest Ranglin of his signature playing style.

"I want people to understand what I'm playing, so I like to keep the melody present and anchor it with a good rhythm," says the Ocho Rios resident from his American home base in Southern Florida. "These days, people aren't looking to be challenged in their listening. You have to meet them halfway."

Ranglin's mastery and perspective are self-acquired. He caught 6-string fever as a kid, inspired by the Jamaican folk music called mento and the recordings of electric jazz guitar innovator Charlie Christian. Ranglin learned to play by renting guitars and studying instructional books. He was still renting when he began gigging as a teenager in Jamaican big bands, which were inspired by American swing records. Eventually he earned enough money to buy a Harmony electric.

Ranglin was playing at Coxsone Dodd's Studio One in Kingston, including sessions with a young Bob Marley, when he cut the rhythm track for pianist Theophilus Beckford's "Easy Snappin'," a 1956 song—unreleased until 1959—that transitioned the sound of the New Orleans rhythm and blues Jamaicans heard over the airwaves into a style of their own: ska. Ranglin's arrangements for that tune and two subsequent singles under his name, including his famed instrumental "Shuffling Bug," are the foundation of ska. And when he began working with Chris Blackwell's fledgling Island Records in England, Ranglin made his ska beat the basis for the label's first international hit: Millie Small's sugary 1964 smash reworking of the doo-wop tune "My Boy Lollipop." That single took ska to the world.

A half-century and a lifetime of touring and recording later, Ranglin's memory is as crisp as his musical command, and he speaks in the same warm, relaxed, lilting manner that makes *Bless Up* such a pleasure to hear.



ERNEST RANGLIN'S GEAR

GUITARS
Gibson ES-335
Ibanez GB10

AMPS
Epiphone EA-32 RVT modified with a 12" speaker
Ampeg VT-120 1x12 combo

STRINGS & PICKS
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Heavy picks, any brand

YOUTUBE IT

This 2012 clip from a live concert at Tokyo's Blue Note features Ernest Ranglin in a band with three other prominent Jamaican artists: the quintessential rhythm team of Sly Dunbar and Robbie Shakespeare, and jazz pianist Monty Alexander. Ranglin's playful sensibility shines throughout, from his beatific smile to the single-note blurts and over-the-top-of-the-neck fretting he tosses into the tune's closing "duel" with Shakespeare.

YouTube search term: Surfin' = Ernest Ranglin, Sly & Robbie, Monty Alexander

Much of your best-known music—from your ska defining single "Shuffling Bug" in 1959 to your arrangement for "My Boy Lollipop" in 1964 to "Surfin' " in 1996—has a rock and pop edge, but *Bless Up* is beautiful and unhurried, almost orchestral in its scope. What led you to that approach?

I've done so many things before, but these days you have to try to meet the people. Let's put it that way. You can't go too far out. I tried to make the album as simple and catchy as possible. Also, I like the tempos. I like to be sure the music is never rushed. What I love is finding certain musicians who have the feel for what I want to do. That helps a lot, because it's not a long process for them to really understand it and play it the best that they can. I wrote songs for this album with the members of the Avila band in mind, because I'd already done one album with Avila, so we all knew each other well. It was easy the second time. They knew what I like and the tempos I enjoy, and I knew whom I was writing for.

Do you currently think of yourself mostly as a guitarist or composer?

I think I do more writing than playing, really, because most of my time is [spent] writing. Whatever comes to mind, I make sure I put it down.

As a composer you combine elements of ska, reggae, jazz, rock, and textural music—sometimes in the same song. That's paralleled in your playing, too. How did you arrive at that fusion of styles?

I started from traditional Jamaican folk music—mento. Then the first bands I played in were swing bands, so my interest in jazz grew. The two people who deeply influenced me after that were Charlie Parker and Dizzy Gillespie, and, after them, the great Mr. Coltrane. From there I went on to play Latin American music and R&B. But jazz was my biggest music after the swing era, and I heard all the pop, soul, and rock 'n' roll on the radio. So I have a lot of commercial styles and maybe a little bit of a semi-classical style in my writing. Today I try to get a feel for whatever is going on in popular music, and try to present music to the people that they can relate to.

Jamaica is typically thought of as a land of rhythm, but your compositions are equally strong melodically. Which is most important to you as a composer?

I like to throw in an anchor, and that's the rhythm. Then the melody should be as simple as possible, but it should have a little "oomph" to it. I like to experiment, but still be aware of having that anchor for the listener.

"Shuffling Bug" was one of the first ska tunes. What inspired you to come up with the rhythm guitar approach that's the heart of ska?

That first ska record was [1959's] "Easy Snappin'" by Theophilus Beckford. But I was the composer of the arrangement for that song, too, and started that type of rhythm. And the next ska tune I did by myself. That was [1961's] "Silky." And then "Shuffling Bug" came a week or two after that. Many people think it's the first ska tune, but it's not.

To explain how this rhythm was formulated I have to take you back to the very first person who influenced me on guitar—Cecil Houdini, who I heard in Kingston when I was a boy. He played this shuffle rhythm. The rhythm I developed is that shuffle rhythm, which is based on a New Orleans shuffle beat, where the first beat [or downstroke] is actually on the second beat.

What was it like growing up and trying to play music in Robins Hall, where you were born, before you moved to Kingston?

There was not much music. It's in the countryside of Jamaica. I lived there until I

Opposite page: Photo by Jonathan Chi

was 9 years old. The first instrument I tried to play at that time was my uncles' ukulele. A lot of people think they taught me how to play, but they didn't. I'm self-taught. They didn't want me to touch it. I would grab it when they went to work and I'd try to retune it, but I couldn't tune it to pitch. I would tune it high, and when I finished I would try to tune it back. I didn't really try to play the guitar until I was 14, and then I would buy books and study those.

Did playing in the popular big bands of Val Bennett and Eric Deans help you step into composing?

Yes, because working with a horn section helped me learn to phrase and seeing the charts helped me learn how to notate music, because in the books I was studying there were only chords—they just taught you how to strum, not to play lines like Charlie Christian.

Besides Charlie Christian, who among jazz guitarists influenced you?

Charlie Christian was the first one I heard, but Oscar Moore with the Nat King Cole Trio was also a fine guitar player. And Django Reinhardt came next for me. But I never really was attracted to too many guitar players. Once I knew a bass player who was fascinated with another great bass player, to the point where he could only play that other man's style. That was not for me. I figured as a young feller I didn't want to copy other people. I wanted to have my own style, so I listened to other instruments, like trumpet, saxophone, and even piano. And from there, I tried to define myself.

Let's talk about some of the guitars you've used on historic recordings and tours.

I had a later model Ibanez I used for part of the new album. George Benson gave it to me. I met him in France when I was playing at Montreux. I told him, "I would like to buy one of your models that you advertise," and I knew that if he recommended me to Ibanez, I would get it a little cheaper. Instead, he gave me a guitar. I took that guitar to Senegal, where I went to do a record with Baaba Maal. Eventually, I gave it to the Jamaican Music Hall of Fame. I've given away many guitars. Sometimes I have as many as 20, but I end up giving away about half of them to charities or a museum. Sometimes I notice someone who can't afford to buy an instrument, so I give them one of mine.

In the '50s and '60s I was using Guilds. I used to have an acoustic Guild, too. I still have a little Guild X-50 I bought from a guy in 1959—a lovely little thing. I also still have my Super 400, my Charlie Christian, my ES-175, ES-335, ES-339, and a few acoustic guitars. I have Fenders, too, but I prefer a hollowbody sound.

How do you get your super-warm tone?

I prefer an Ampeg VT-120. You can get what you want from it. I don't like a tinny, tinny sound. I can tune up the amp the way I want it. Of course, I also roll the tone pots back on my guitar. I generally use the dark side of the tone. I'm not a guitar player who bends and stuff like that. I like my guitar to sound mellow.

Tracking a Legend

Ernest Ranglin's *Bless Up* is an ambitious, well-realized summation of the veteran guitarist and composer's musical vision, but for record label owner and producer Anthony Mindel, it's also part of what he describes as "the ultimate experience—something I'll cherish for the rest of my life.

"I've been listening to Ernest's music since high school," he explains. "I grew up in the Bay Area, and lots of ska and reggae gets played in Northern California. That music just seems to fit the lifestyle, and I certainly took it to heart. If I had to pick one style of music to listen to on a desert island, it would be Ernest's, because it's got the jazz, reggae, ska, and world music sounds I love."

Mindel began working with Ranglin in 2011 when he assembled the aces in the band he dubbed Avila—also the name of his record label—to support the guitarist at the High Sierra Music Festival in Quincy, California. The resulting interplay inspired Mindel to take Ranglin and his new compadres to In the Pocket studio, nestled amidst the redwoods of Sonoma County, to cut 2012's *Avila*.

"*Bless Up* takes their collaboration to a new level," says Mindel. "I really want people to hear this album so they'll know Ernest is still going strong at 82, composing and playing great music that touches on all eras of his career. Ernest showed up for the sessions with beautifully written charts—and they were handwritten, not done on a computer like all the charts you see today. The album has a real analog integrity and the band sounds like they've been playing together for years. And while nobody knows Ernest's music like Ernest, he was very open to suggestions from the other musicians."

Ranglin's playmates in Avila fit naturally into the guitarist-composer's internationalist perspective. Bassist Yossi Fine is from Israel, drummer Inx Herman hails from South Africa, and keyboardist Jonathan Korty is a Californian.

"Working with Ernest and being his friend means everything to me," Mindel relates. "It's the culmination of all I've dreamed about musically, and I'm constantly inspired by his work ethic, virtuosity, humor, and generosity. We'd like to make more albums with Ernest for as long as he's able to keep composing and recording."

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Installing an EVH D-Tuna on a Floyd Rose

STORY AND PHOTOS BY JOHN LEVAN

A few months ago one of my favorite clients brought in a very cool project. He wanted me to install an EVH D-Tuna (**Photo 1**) on his Floyd Rose-equipped Peavey V-Type Limited Edition. Designed for double-locking tremolo systems, the D-Tuna lets you quickly lower your bottom E string a whole-step to D without having to unlock the string nut, retune, and then lock the nut again. Now that's handy!

D-Tuna details. The device works with standard electric string sets and in either concert or E♭ tuning. (In the latter case, the dropped 6th string goes to D♭.) The kit includes two locking screws of different lengths; this allows the D-Tuna to work with most Floyd Rose or Floyd-licensed double-locking trems, such as the Peavey unit in **Photo 2**. Once the spring-loaded device is installed, you simply press it down to drop the low E string to D. To raise the 6th string to E again, push the D-Tuna towards the bridge—it's that simple.

The D-Tuna has been around since the early 1990s and it's relatively easy to install. But it does require one very important modification: For the D-Tuna to work properly, the tremolo has to be blocked to prevent the rear end from drawing back toward the body. (On the D-Tuna website, this is described as "stabilizing" the bridge.) This mod requires installing a small wooden block inside the spring cavity between the Floyd's inertia block and the body, as shown in **Photo 3**. This block, or shim, resides on the spring side of the cavity.

The rest of the project is rather routine: replace the string-lock screw, install the D-Tuna, tune the guitar, and finally adjust the intonation. Let's go through each stage of the process.

Preliminary setup. Before I install a D-Tuna, I make sure the guitar's action is adjusted to match my client's playing style. In fact, I like to give a guitar a thorough setup before installing the D-Tuna. For a detailed description of the process, check out "How to Set Up a Floyd Rose-Style Trem" on premierguitar.com.

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Blocking the tremolo. Once the action is adjusted, it's time to block the tremolo. This is to prevent the inertia block from drawing toward the spring claw after you've dropped the low E a whole-step and reduced string tension.

The best way to do this? Carve a slim wooden shim to position between the Floyd's inertia block (where the springs attach to the trem system) and the edge of the spring cavity. I like using maple for this because it's so durable. The tools are simple—you can use a small hobby saw and a belt sander or a few sheets of medium and fine sandpaper—but it takes time to measure, cut, shape, and fit the shim, so be patient.

And here's an important detail: I recommend sizing the shim so it's level with the body at the edge of the spring cavity. In other words, avoid using a shim that extends as far as the inertia block, as this can cause the springs to bind on the shim and create tuning issues. (Refer to **Photo 2** again to see how the shim stays level with the body.) Another reason to use a shim that's shorter than the Floyd block: You want to be able to raise or lower the bridge to adjust the overall action without dislodging or bumping the shim.

As you shape the shim, make sure the tremolo base remains level with the guitar top when the strings are tuned to pitch. Unless you've made a few of these shims, assume that the fitting and shaping will take several passes, and it's crucial to retune to pitch each time.

Once the shim is installed and the tremolo is level with the body, you're ready to secure the shim to the edge of the spring cavity using medium viscosity super glue. I don't recommend attaching the shim to the inertia block.

After you've glued in the shim, check the tremolo for any slack. If the bridge tail can draw back, you may want to tighten the screws on the spring claw to eliminate

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this slack, but be sure that the tremolo remains level with the guitar body.

Adjusting intonation. Next, use a high-quality electronic tuner to check the 6th-string intonation at the 12th fret one more time. In fact, I like to check the 12th-fret intonation with the string first tuned to E and then retuned down a whole-step to D. If the fretted note is sharp relative to the 12th-fret harmonic, move the saddle back (away from the neck). Conversely, if the fretted note is flat compared to the harmonic, move the saddle forward. Most Floyd Rose systems use a 2.5 mm hex key to unlock the saddle's set screw.

Installing the D-Tuna. Here comes the easy part! Unlock the 6th string at the string nut and slacken the string with the headstock tuner. Remove the 6th-string locking screw at the bridge (**Photo 4**) and replace it with the D-Tuna device. Typically this requires a 3 mm hex key.

As I mentioned earlier, the D-Tuna ships with two different length screws for attaching the D-Tuna to the bridge. **Photo 5** shows the original screw (top) compared to the longer replacement screws. Choose the replacement screw that gives you enough room to fully disengage the D-Tuna and thus drop the low E to D. For this guitar, I used the shorter of the D-Tuna screws.

First, slide the D-Tuna spring onto the screw, and then slide the knurled unit onto the screw. **Photo 6** shows the spring and D-Tuna installed on the new locking screw. Next, insert the locking screw into the bridge saddle and tighten it as usual.

Now, back the 6th-string's fine tuner all the way out, and then set it so it's barely touching the replacement screw. Then, with the D-Tuna pulled out—disengaged—tune the 6th string to D and lock down the string nut. In **Photo 7**, the D-Tuna is installed, but disengaged. Using the Floyd's fine tuner, tune the 6th string to D.

Test the unit by pushing the D-Tuna towards the bridge, fully engaging it (**Photo 8**). This should retune the 6th string to E. At this point, use the kit's included wrench and D-Tuna's set-screw adjuster to fine tune the E.

Next push down on the D-Tuna to disengage it again and check the tuning to make sure it's at D. I recommend you do the majority of your D tuning at the headstock, rather than using the Floyd's fine tuner. Sometimes the fine tuner will shift slightly when you use the D-Tuna, but backing the fine tuner all the way out prevents this from happening.

With a little practice, you'll find that using a D-Tuna is pretty simple, and you'll be able to incorporate dropped-D riffage into your music whenever you get the urge.

JOHN LEVAN *has written five guitar repair books, all published by Mel Bay. His bestseller,* Guitar Care, Setup & Maintenance, *is a detailed guide with a forward by Bob Taylor. LeVan welcomes questions about his PG column or books. Drop an email to guitarservices@aol.com.*

The Song Guys

BY VICTOR BRODÉN

Hugh McDonald, the architect behind the bass lines for "Livin' on a Prayer," plays with a singable and melodic style that really sets him apart from other bassists.

In my previous columns, I've mentioned plenty of songs featuring the bassists I've learned a lot from. The common thread with most of my influences is that they are all players I refer to as "the song guys." These bassists might not be known for ripping solos or grace the covers of trade magazines as often as the players known for their flash or innovative techniques, but these guys are seen in more arenas, listened to on more car stereos, and heard in more headphones at the gym than most musicians.

These players are on the soundtrack to many people's lives, but most of these players will never be household names. The following list of musicians is a very small dip in the deep pool of world-class bassists who wear taste and an unselfish approach to playing music on their sleeves.

Donald "Duck" Dunn

The name James Jamerson is usually the first one to pop up when discussing the beginnings of soul bass. Jamerson was the house bassist for Motown in Detroit and his genius is undeniable. But the house bassist for Memphis-based Stax has influenced my playing more.

Donald Dunn's playing was physically very forceful. In contrast to many modern-soul bassists—who often use a refined, understated technique—Dunn's touch was more like a jackhammer on a construction site than an artist painting with a brush. To me, the energy that came out of the man's right hand is unparalleled. I find that having a heavier right-hand approach means the wood of the fretboard really speaks through in the recording. Check out "She Caught the Katy" from the movie soundtrack for *The Blues Brothers*.

Hugh McDonald

I'd been playing bass for one year at the age of 13 when I purchased Bon Jovi's *Slippery When Wet*. My comprehension level on the instrument was nowhere near where it needed to be in order to grasp the melodic, bouncy, mega-hooky soul/pop approach Hugh McDonald was using on a project that was essentially a hard-rock album.

Hearing the album changed my playing life forever. (McDonald isn't even credited on the album, which is another story all to itself.) McDonald's approach is informed by the rhythmic, heavily syncopated style of Jamerson and the highly singable and melodic approach of Paul McCartney's lines. To me, no other player combines the two styles better than McDonald. His influence still sneaks into my own playing on *every* session, 28 years after I first heard that album.

In my approach on my current main touring gig as musical director and bassist for pop/country duo Thompson Square, his ideas can be heard more frequently than I like to admit. McDonald's lines on "Born to Be My Baby" (on Bon Jovi's *New Jersey*) demonstrate bass-playing perfection for me, period.

Randy Jackson

Yes, *that* Randy Jackson of *American Idol* fame. He was one of the top first-call bassists in the world for many years, and rightfully so. Jackson plays bass with a lot of confidence and will give you the impression that he's driving a train or flying a jumbo jet.

As a result of Jackson's influence on me, I frequently practice being able to drive a song forward, without playing on top of the beat. One specific trick Jackson uses is pressing his thumb and index finger together (like he is gripping a pick, but without actually using one) and using his nail to make contact with the string. With this approach, we hear a pick-style feel without necessarily getting the sonic characteristics of a pick-style *tone*. Jackson has used this technique on Mariah Carey songs to hard-rocking Springsteen songs. A great example of Jackson's style can be heard on a little-known Richard Marx song entitled "The Image."

Cliff Williams

The man has no ego: none, zip, zilch, zero. Imagine being the bassist for one of the biggest rock 'n' roll bands of all time and having the opportunity to contribute to the music world through your bass playing in any way you want, which fame enables you to do. The options are endless, right? But in the face of that opportunity, you make a decision to just keep your head down and play eighth-notes on the root note 90 percent of the time.

Therein lies the genius of Cliff Williams from AC/DC. By providing a constant yin to the yang of the famous lazy backbeat of drummer Phil Rudd, they created a groove nastier and simpler (but absolutely not basic or easily replicable) than any other rhythm section in rock. Williams has never been worried about impressing fellow musicians. His concern is starting the party, getting the arena floor moving, and keeping the room shaking. The older I get, the more I understand the depth of his musicianship.

I'd love to hear you all chime in with some names of the non-flashy bassists who are inspiring to you, and why. For them to impress you with a subdued style means they have to be pretty special, right?

VICTOR BRODÉN *is a Nashville bassist and producer who has toured and recorded with more than 25 major-label artists, including LeAnn Rimes, Richard Marx, Casting Crowns, and Randy Houser. You can reach him at vbroden@yahoo.com.*

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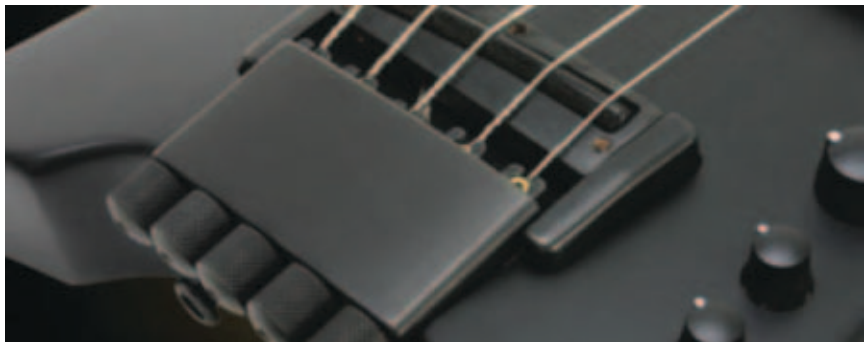
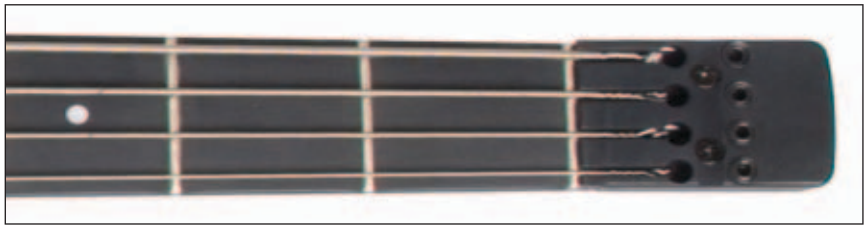
Introducing the Headless Bass

BY HEIKO HOEPFINGER





Right: The two main elements of a headless instrument: the bridge and headpiece.

Below: Ned Steinberger and his creation.

Someone recently posted a photo of a headless bass in a forum. Yes, that frequently happens, but what was surprising this time was the reaction of an obviously younger bassist. He vigorously complained that the thread opener had posted a photo of an "incomplete or broken instrument." I'm sure we're all used to encountering a high degree of ignorance when surfing the net—and particularly when accessing these "open-to-all" areas—but apparently this guy had never seen a headless instrument.

No bassist should be surprised if the general public doesn't get it, but someone who's a player should at least have an interest in the various flavors of our instrument. Especially when you consider there aren't *that* many flavors in the bass world to begin with. It's reason enough, I'd say, to revisit the design that kicked off one of the most adventurous periods of our instrument's history.

Flashback. Birthed in the 1930s, the electric bass became popular in the '50s when the Precision hit the stage. After laying the foundation for rock in the late '60s and throughout the '70s, the electric bass finally encountered its wildest and most experimental era. Prior to that, countless manufacturers had been offering variations of the initial design—different woods, colors, pickups, body shapes, and materials—so builders and players must have thought they'd seen it all.

That is until 1979, when a young Ned Steinberger popped up and revealed a radically different concept and construction: the headless bass. (And yes, we got it before guitarists!)

Not only did he swap out all the wood for a two-part graphite build consisting of a one-pieced body and neck, plus a faceplate, he also changed the arrangement and functionality of some key elements. By using a body-based tuning system, Ned managed to get rid of the entire headstock. The silhouette of this bass differed so dramatically from typical models that even non-musicians could easily recognize it. Because ignorance is not an invention of our time, it must have been hard to get the word out to players and, more importantly in those pre-internet days, retailers.

The Steinberger makes its debut. A few years ago at the Frankfurt Musikmesse, I had the opportunity to get an extended, highly entertaining history lesson from Hap Kuffner, a New York shop owner and later associate at Steinberger Sound. Hap was so impressed by his first meeting with Ned that he still remembers the encounter decades later.

That fateful day, a young guy entered his store. After playing a few notes on a futuristic-looking instrument, he unstrapped it and smashed it on the floor. He then picked it up and began playing again to demonstrate it was still in tune.

Over the next few years, Ned and Hap reenacted this scenario many times to show off the Steinberger's superior durability and tuning stability. This move illustrates one of the advantages of the basic material and construction, but there are others.

The headless concept was quite successful for almost a decade, but as we know today, the vast majority of players could never be convinced to go for it, most likely for one reason: its unusual looks! The openly experimental '80s were surely the best era to host the headless bass. Had it been introduced today—an age dominated by selfies and publicly displayed ignorance—chances are we'd have missed its many practical advantages.

That's why it's good to see the concept regaining attention. In the world of musical instruments, there are several perennial, unresolved debates: tube versus solid-state amps, active versus passive electronics, wood or graphite construction, set neck, bolt-on, or neck-through designs, etc. All those technologies have their pros and cons, but in the case of headless construction, the concept really has all the arguments on its side. In fact, the arguments are so compelling that we'll take a detailed look at them next time.

HEIKO HOEPFINGER *is a German physicist and long-time bassist, classical guitarist, and motorcycle enthusiast. His work on fuel cells for the European orbital glider Hermes led him to form BassLab (basslab.de)—a manufacturer of monocoque guitars and basses.*

Photos courtesy steinberger.com

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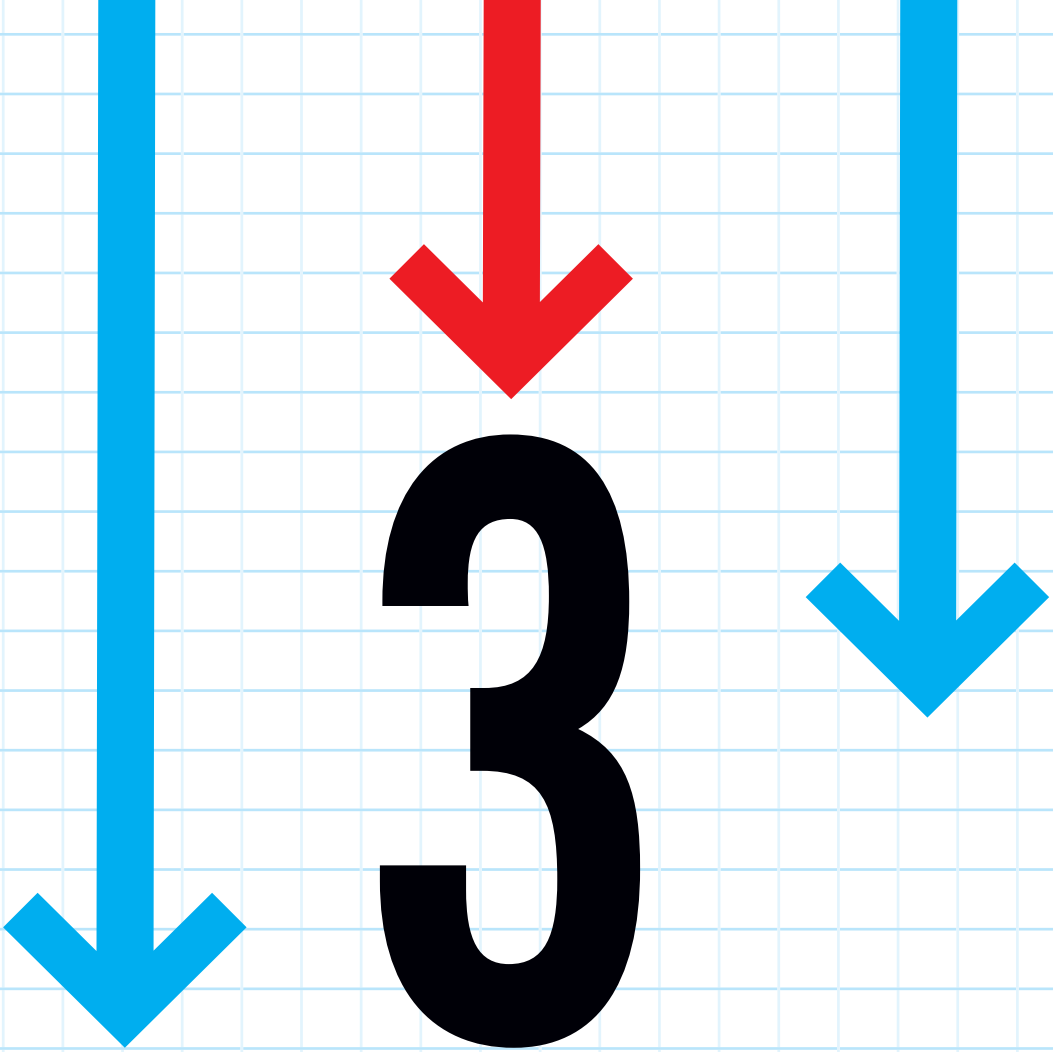


To see larger photos, click here to head online to premierguitar.com

3 MUST-TRY GUITAR WIRING MODS

These DIY mods just may change the way you play.

BY JOE GORE

All wiring mods are *not* created equal. Some add a bit of convenience or a subtle new shading, while others are radical departures that open new creative avenues for the adventurous guitarist.

Consider so-called "vintage" or "'50s-style" wiring, in which the tone pot and cap are connected to the middle lug of the volume pot rather than the usual third lug. Given the sheer number of posts the topic has amassed on guitar-geek sites, you'd think it was an earth-shaking option. Yeah, it's a cool mod that I happen to dig, but really, the sonic benefit is modest: just a bit less loss of brightness when you dial down the volume.

These projects aren't like that. Each one drastically alters your guitar's available tones and the ways you access them. They can literally change the way you play.

This article assumes you're familiar with basic soldering techniques. If not, check out a few YouTube soldering tutorials. I don't have to remind you to follow all suggested safety guidelines, do I? (Okay—you're reminded.)

1

MOD #1 PTB Tone Control

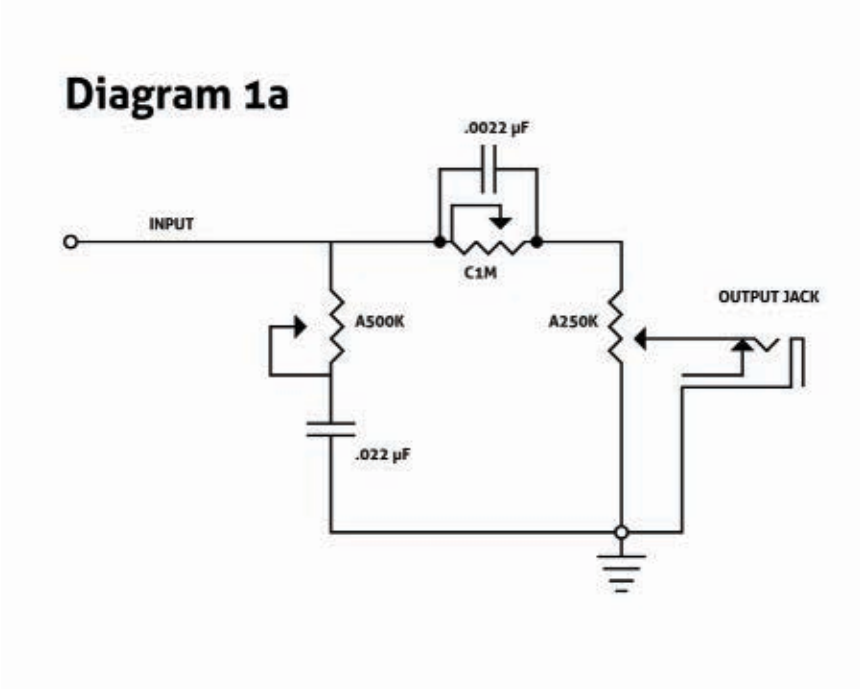
What it is: A variation on the two-band tone circuit that Leo Fender created late in his career for G&L guitars. It employs two tone pots: One cuts highs like a conventional tone control, while the other filters out lows. PTB stands for "passive treble/bass."

The benefits: This mod is a godsend for players seeking greater control over their distortion sounds, especially with humbuckers. When playing clean, the results are relatively subtle. But when you pour on the gain, even tiny adjustments to your signal's bass content can add clarity, punch, and welcome variation to your crunch tones.

Just ask any savvy stompbox builder or low-tuned 7-string player: Sometimes the best way to add power to your low tones is to *remove* a bit of bass. That's because the lowest frequencies in your signal disproportionately overdrive your amp and effects. Siphoning off just a bit of bass can add clarity and focus. At extreme settings, the filtering can produce sharp, squawking tones akin to those of a '60s treble booster pedal (not a bad thing). If you've ever grappled with high-gain tones that make your amp fart out, here's your flatulence remedy.

The cost: The original G&L scheme calls for alternate pot values, but the project here uses the 500k pots found in most humbucker guitars, so all you need are wire, solder, and a few capacitors. On a three-knob guitar, you wind up with one master volume control and two master tone controls, but you sacrifice individual volume controls for each pickup. On a four-knob guitar, you still have independent volume controls, but you lose the independent tone controls.

How it sounds: **Ex. 1a** demonstrates the treble-cut control—nothing surprising here. (If you're reading this in print, go online to hear the embedded audio clips.) **Ex. 1b** features the bass-cut. With a clean tone like this, it's a bit subtle, though you can hear the difference if you focus on the low notes. But **Ex. 1c** adds a vintage-style germanium Fuzz Face with the gain and volume maxed. With the guitar's tone control wide-open, the signal easily overpowers my vintage Fender brownface—your typical Fuzz Face fart. As I gradually trim bass via the guitar, the tone acquires greater punch and clarity. I remain on the neck pickup throughout—the only thing changing is the guitar's bass pot setting. The extreme-cut settings near the end of the clip may sound harsh in isolation, but they can be *perfect* in a band context. At the end of the clip I max the bass pot again to underscore how much the tone has changed. It ain't subtle.

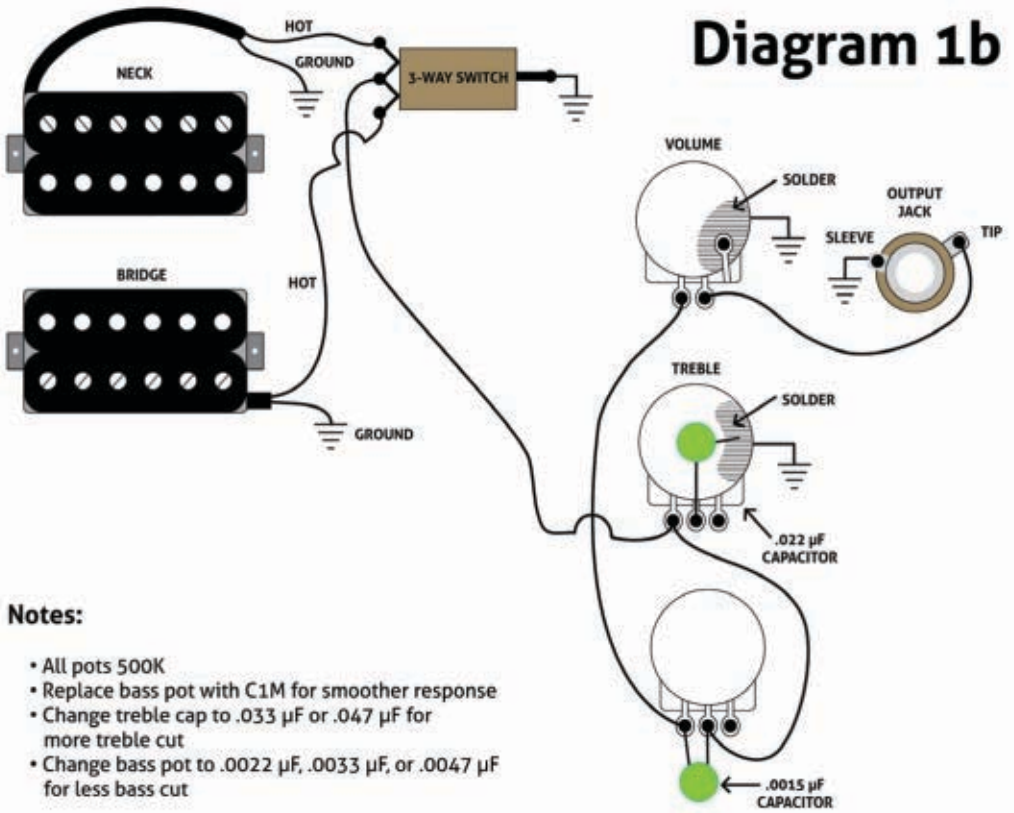


How it works: **Diagram 1a** (above) depicts Leo's original schematic. The signal from your pickups or pickup selector gets routed to two tone pots. The 500k pot and .022 µF capacitor provide a conventional treble-cut control. Meanwhile, the 1M pot and smaller .0022 µF cap filter out lows. (Pay careful attention to the zeros and decimal points in those cap values!) The treble cut creates its effect in the usual way: by diverting signal to ground. But the bass cut doesn't go to ground at all—the low-filtering cap is inline with your signal. Its output goes to the volume pot (250k in the original). Clever!

Diagram 1b (see p. 109) shows my adaptation for three-knob humbucker guitars, using the extant 500k pots. For visual clarity, I've indicated ground connections with a down-facing triangle. As you probably know, all ground wires must be electronically connected to each other. (One convenient method is to solder all pickup ground wires, the output jack ground, the pickup selector ground, and the bridge's ground wire to the back of the volume pot, and then run a jumper wire to ground the treble control. In conventional wiring, all pots must be grounded, but here, it's not necessary to ground the bass pot.)

Diagram 1c (see p. 109) is a version for four-knob guitars, such as traditional Les Pauls. The only difference: On three-knob guitars, the signal usually goes from the pickups to the pickup selector

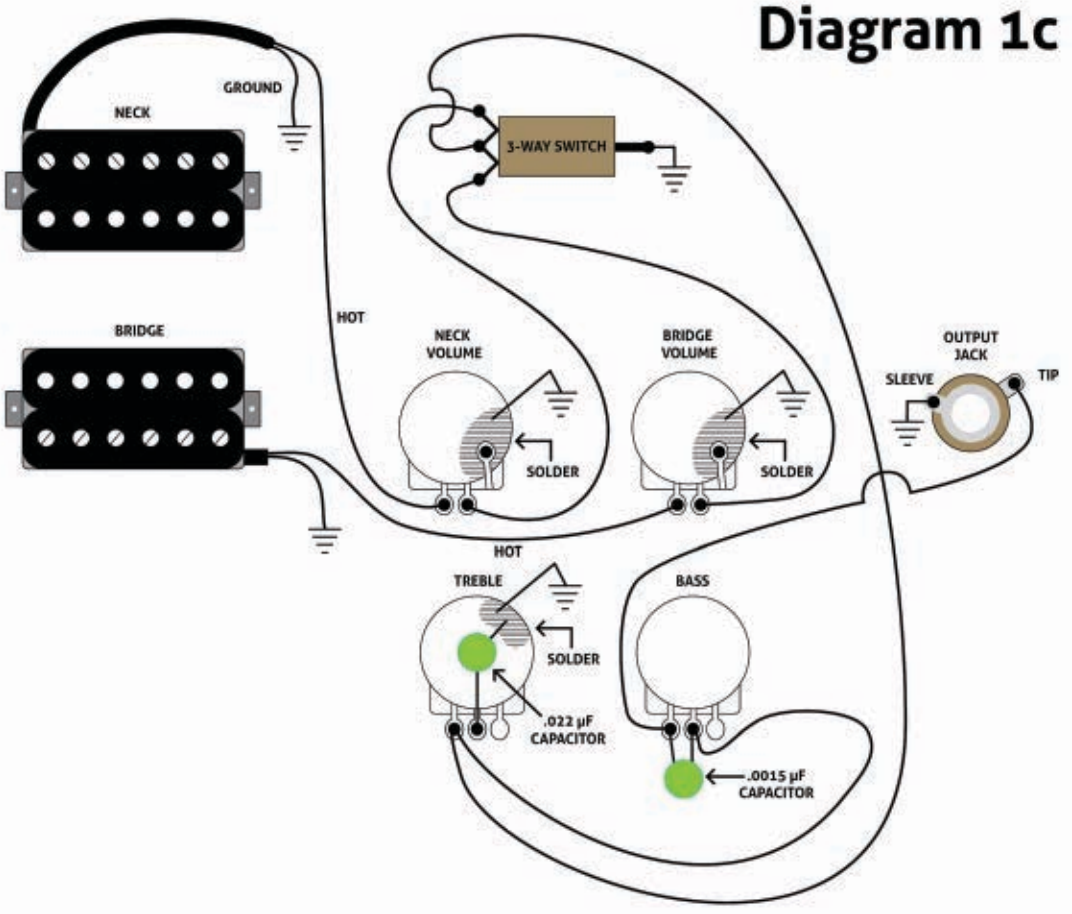
Diagram 1b



Notes:

- All pots 500K
- Replace bass pot with C1M for smoother response
- Change treble cap to .033 µF or .047 µF for more treble cut
- Change bass pot to .0022 µF, .0033 µF, or .0047 µF for less bass cut

Diagram 1c



to the pots. But on four-knob guitars, the volume pots are upstream from the pickup selector to permit independent volume control per pickup.

DIY walkthrough: You don't necessarily need to perform the steps in this order—it's just one method.

Since I have no idea how your guitar is currently wired, I've started with a fresh set of pots. My demo guitar is a three-knob Hamer 20th Anniversary, which has its pickup selector in the control cavity alongside the pots (**Photo 1a**).

In **Photo 1b** I've completed the ground connections as described above, though I've connected the output jack's ground to the back of the treble pot. The white wire is the pickup selector output, connected here to lug 3 of the treble pot. (Remember: When viewing pots from the back, lugs down, lug 3 is on the left, and lug 1 is on the right.) This wire usually connects to lug 3 of the volume pot, but this circuit routes the signal through the bass pot first.

In **Photo 1c** I've added the treble-cut capacitor between lug 2 of the treble pot and ground. I used a .022 µF (also known as a 223). For more cut, try a larger value, such as .033 µF (333) or .047 µF (473). The larger the cap, the greater the cut.

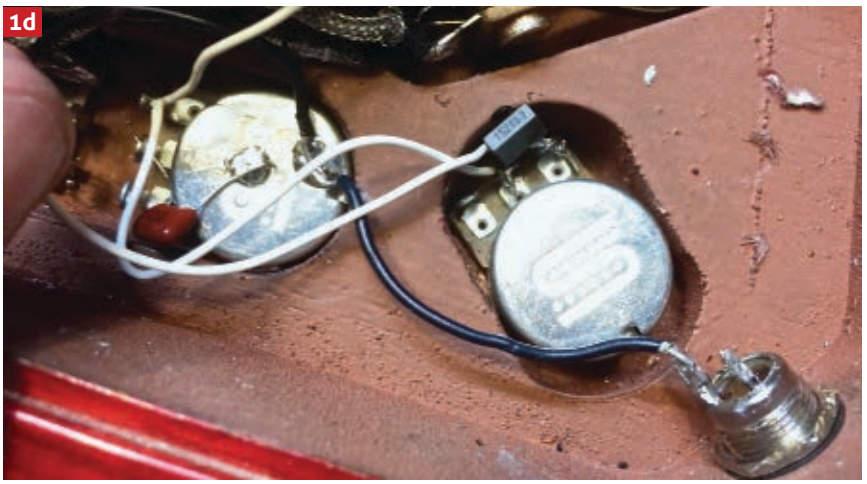
Photo 1d adds the bass-cut components. Since the output from the pickup selector must feed both tone pots, I've run a wire from lug 3 of the treble pot to lug 3 of the bass pot. I've added a .0015 µF (152) cap between lugs 3 and 2. Here, pot values work in the opposite direction: the smaller the cap, the greater the bass cut. If the .0015 µF sounds too extreme, try stepping up to a .0022 µF (222). I've added a wire to the bass pot's lug 2, which connects to the volume pot's lug 3. Connect the volume pot's lug 2 to the output jack, and you're done.

The four-knob version. The procedure is similar for four-knob guitars. The only difference: Since the volume pots are upstream from the pickup selector, the signal runs directly from lug 2 of the bass pot to the output jack, as opposed to being routed through a volume pot.

1a

1b

1c


1d

A reverse-log bass pot? While you can get fine results using your guitar's extant pots, the original G&L circuit calls for a 1M reverse-log pot (the "C" in C1M signifies reverse-log). With a standard audio-taper pot, the effect comes on quickly near the top of the pot's range. With a reverse-log pot, you get a gradual onset of the bass cut that may be easier to fine-tune. The problem is, it's almost impossible to find a C1M pot in a standard 24 mm format. You can get a 16 mm version from stompbox parts suppliers, but it won't work in Les Pauls requiring long pot shafts. After experimenting with various options, I've gone back to a standard 500k pot, because when I reach for that control, I usually *want* the lows to evaporate quickly.

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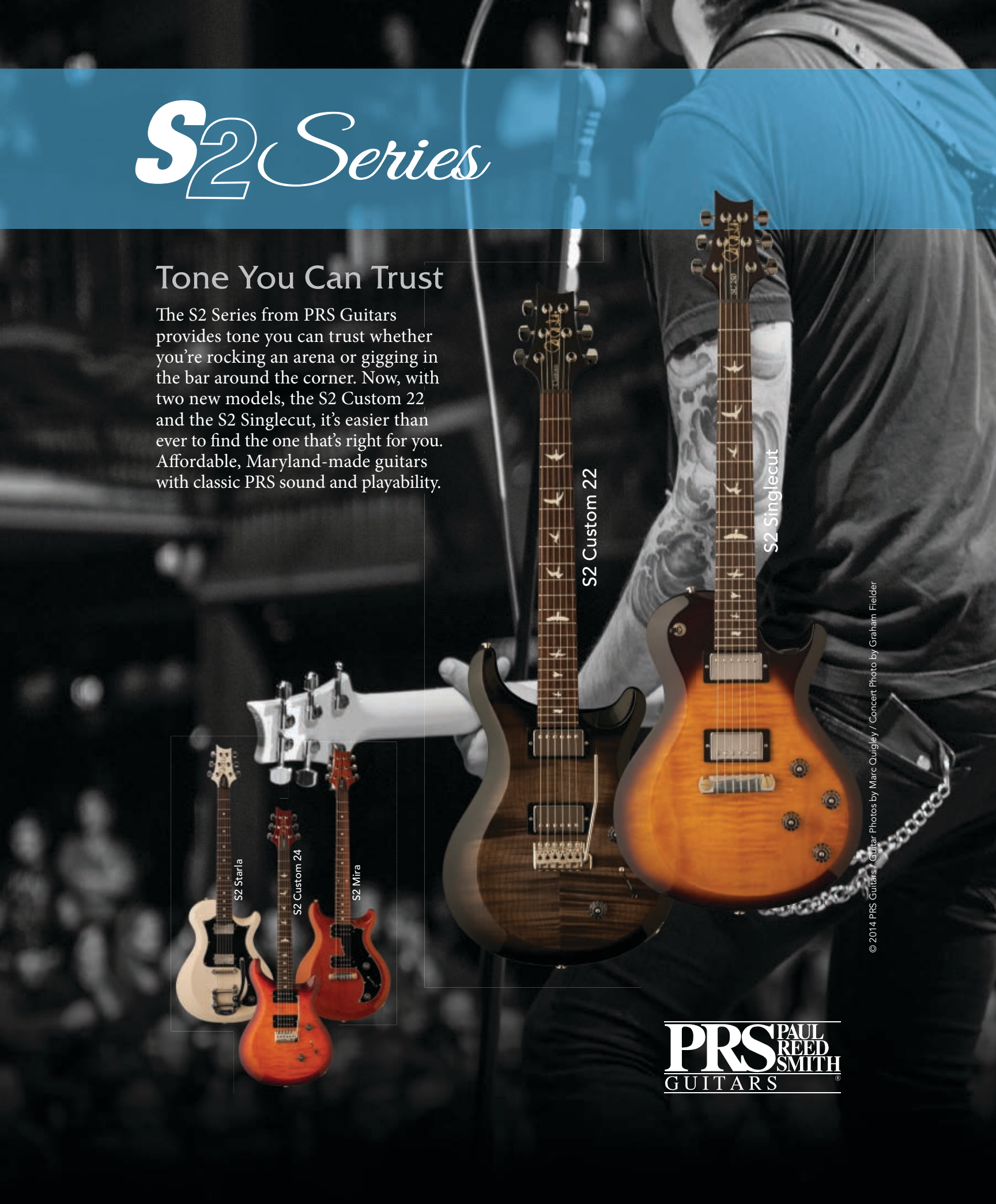

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MOD #2 Nashville Strat

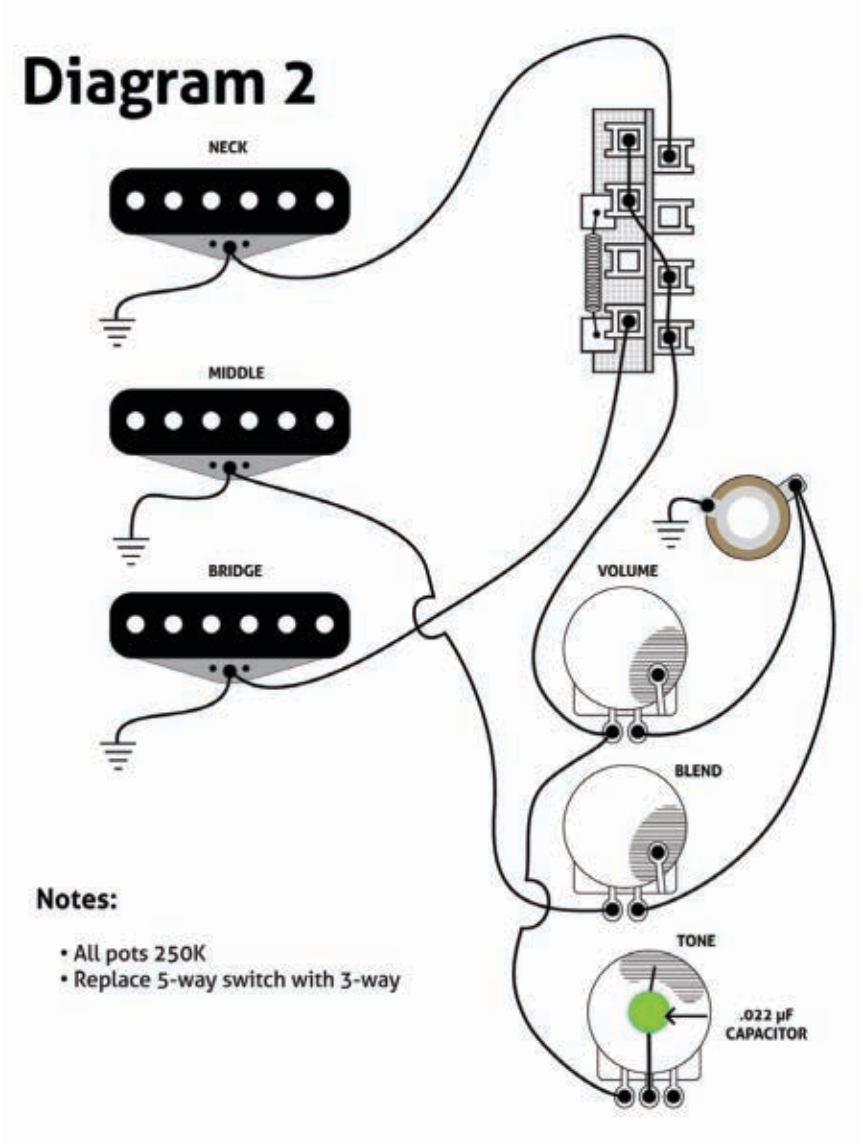
What it is: A Stratocaster version of "Nashville wiring," a trick Telecaster mod popularized by Music City's session cats. Some Tele players add a third pickup (plus a blend knob), expanding the range of combined-pickup tones. The same wiring performs brilliantly in a Strat—without the cost and hassle of installing a third pickup.

The benefits: Access to a stunning array of combined-pickups sounds, including the outer pickups together—a gorgeous color not available from conventional Strat wiring. Not only can you choose between four cool combined sounds, but you can also vary the blend for subtler effects than those of a traditional Strat's 2 and 4 positions.

The costs: This mod requires a Tele-style 3-position pickup selector in lieu of a Strat's usual 5-position switch. You also sacrifice the sound of the middle pickup alone. The middle knob becomes a pickup blend control, while the third knob serves as a global tone control.

How it sounds: **Ex. 2** showcases an assortment of combined-pickup tones not available on a conventional Strat. (The demo guitar is a "parts" Strat with three lipstick-tube pickups. While their character differs from those of traditional Strat pickups, it's a good representation of the range of available tones.) You also have access to the traditional position 1 and 5 tones.

Playing guitars wired this way changed how I view combined-pickup sounds. Whatever position the pickup selector is in, you always have access to the so-called "out of phase" sounds via the blend pot. The blend control becomes something like a camera's aperture setting: In minimum position, sounds are direct and crisp. As you advance the knob, tones become softer, prettier, and more diffuse. I find this to be a more musical and intuitive approach to tone sculpting.



How it works: The neck and bridge pickup are wired as on a traditional Tele, with the pickup selector's middle setting combining the two pickups. Meanwhile, the middle pickup is routed directly to the output jack, bypassing the tone and volume controls (**Diagram 2**).

That may seem counterintuitive: Wouldn't you want the tone control to affect both pickups in combined-pickup settings? But it just seems to sound better this way. Rolling back the treble on combined-pickup tones tends to rob them of their cool phase-cancelled character. This way, tones still get darker/warmer when you dial back the treble, yet retain a nice airiness. Try it and see!

DIY walkthrough: In **Photo 2a** (see p. 114) I've replaced the Strat's 5-way pickup selector with a Tele-style 3-way. I've threaded a wire through the two leftmost lugs of the selector's spring side and the two rightmost lugs on the opposite side. Additionally, I've connected the bridge and neck pickups as shown in **Diagram 2**.

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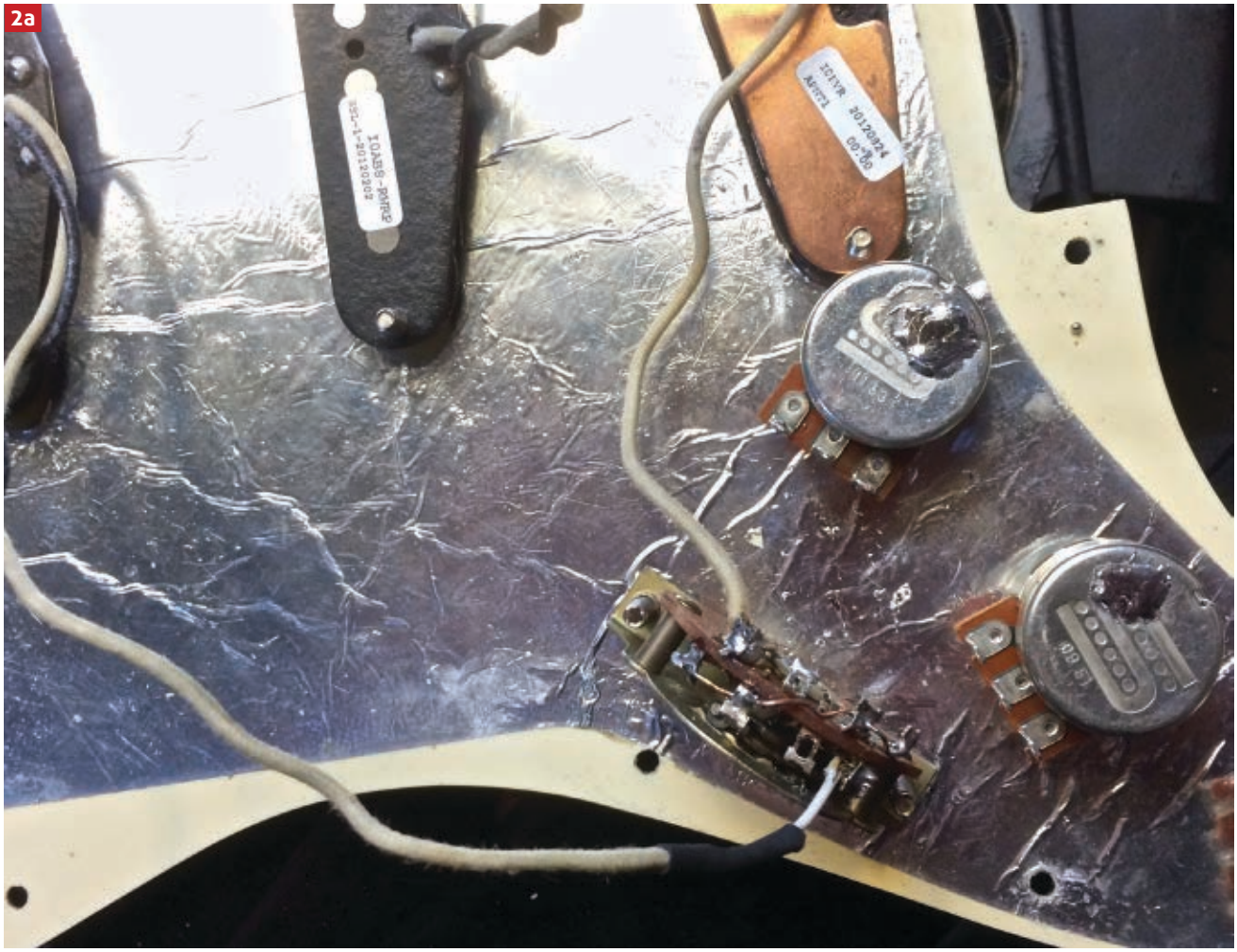
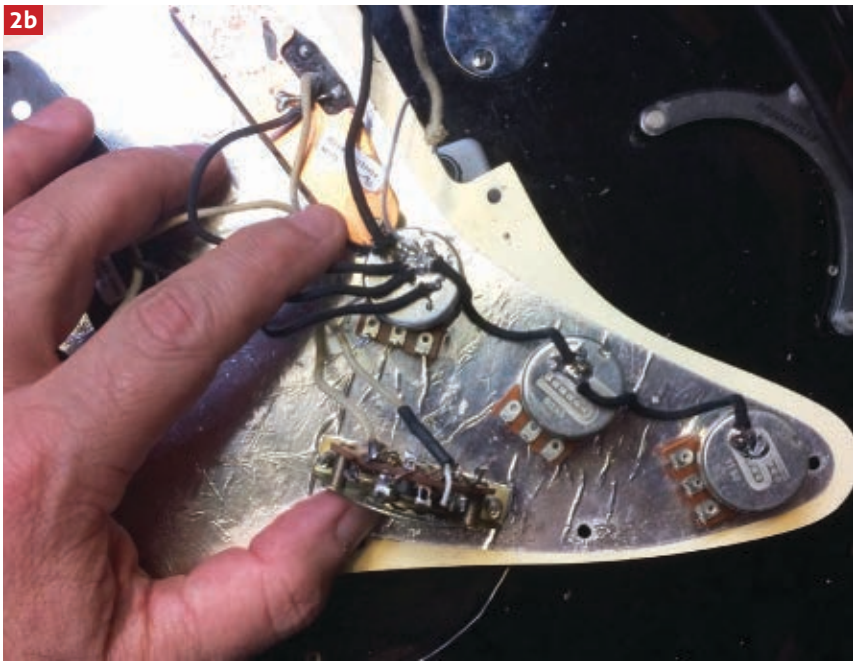


In **Photo 2b** (right) I've added all the ground connections. The three pickup ground wires, output ground, and bridge ground are all soldered to the rear of the volume pot, with additional wires grounding the blend and tone pots. (All pots must be grounded in this circuit. It doesn't matter where they connect physically, so long as they connect electronically.)

You must connect both the volume and blend control outputs to the output jack. In **Photo 2c** (see p. 116) I've removed the jack plate to install a second wire that will connect to lug 2 of the blend pot. (Alternately, you could add a Y-joint inside the main control cavity, reinforcing the connection with heat-shrink tubing.)

Photo 2d (see p. 116) shows the volume pot connections. One output jack wire connects to lug 2, while the



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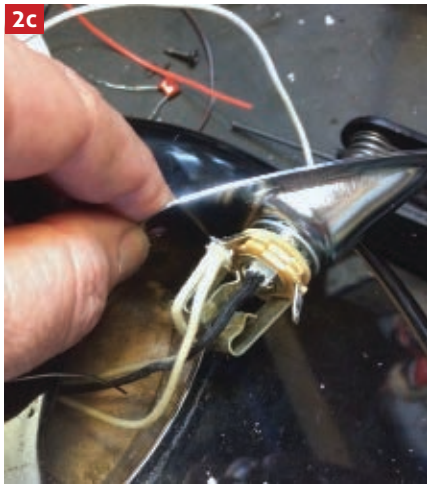
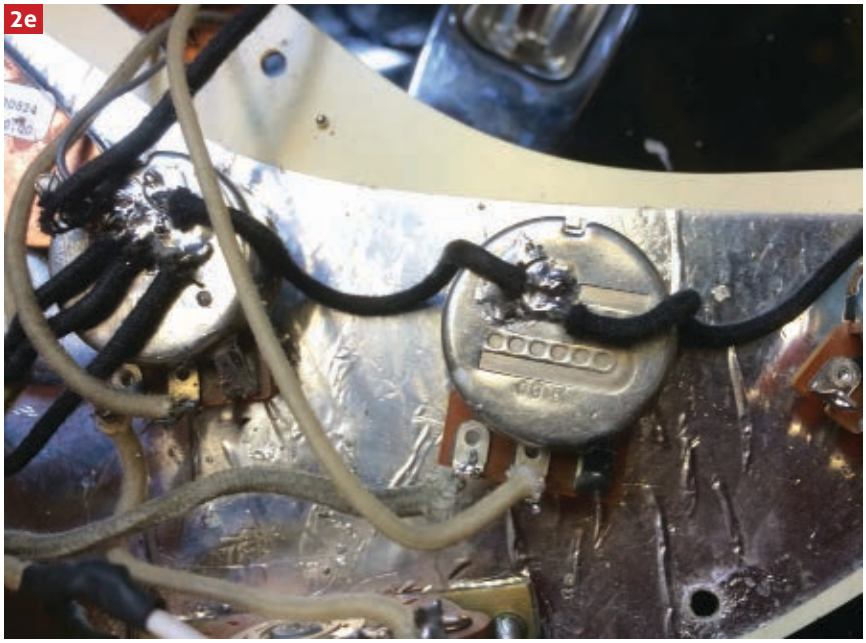

2c

2d

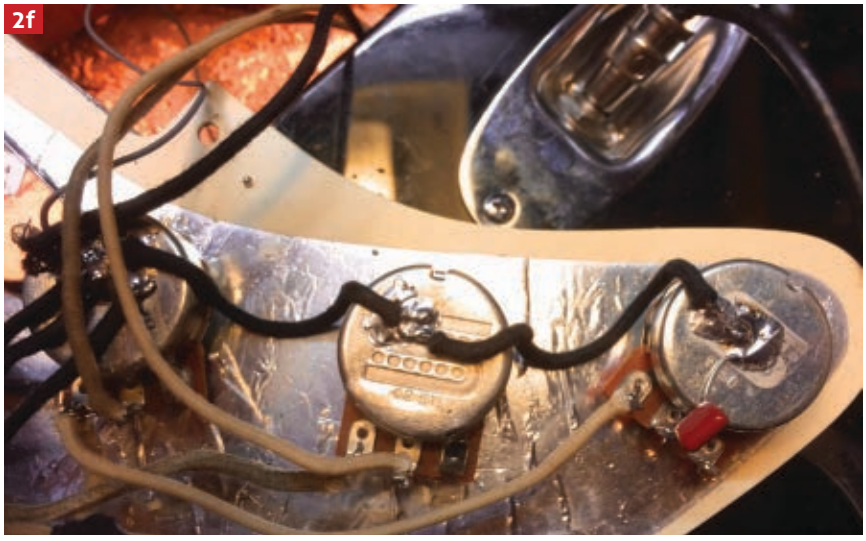
pickup selector output (the rightmost lug on the non-spring side, as viewed in this orientation) connects to lug 3. Lug 1 is bent and soldered to the side of the pot for a ground connection, per usual.

The blend control wiring appears in **Photo 2e**. The hot wire from the middle pickup connects to lug 3, bypassing the tone and volume controls. The second output jack wire connects to lug 2.

Photo 2f shows the tone pot wiring. Lug 3 connects to the volume pot's lug 3. Solder one end of the tone-cut capacitor to lug 2, and the other to the back of the pot, grounding it. I've used a .022 µF (223), a standard value, though you can step up to .033 µF (333) or .047 µF (473) for a stronger effect—the larger the cap, the greater the treble cut. If you like the sound of your current tone cap, just reuse it here. And that's it!


2e

Bonus bridge pickup tip: Like many Strat users, I have a love/hate relationship with the traditional bridge pickup. It works great when you want a clear, piercing sound, but tends to be short on mass. Some players remedy this by installing humbuckers or other higher-output pickups in the bridge position. But instead of trying to coax Gibson tones from a Strat bridge pickup, I prefer a Tele-style bridge pickup sized for Strats, such as the excellent Seymour Duncan Twang Banger. With its Tele-style metallic base plate, it provides tough, edgy tones with more mass than traditional Strat pickups—without relinquishing that fine Fender sizzle.


2f

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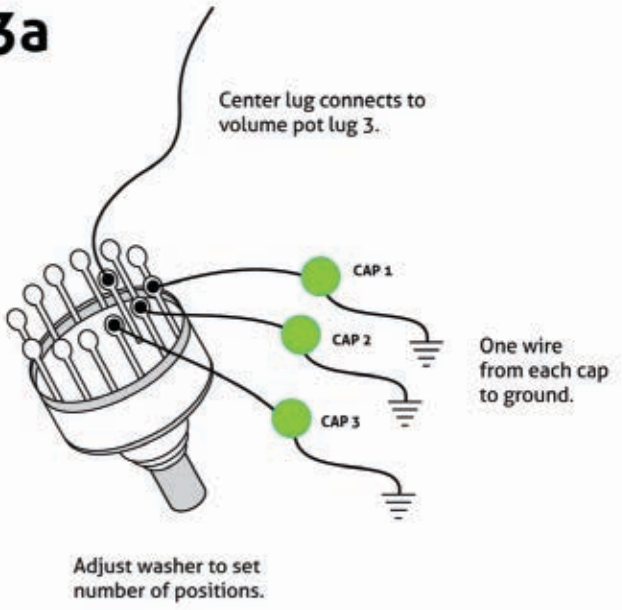
MOD #3 Varitone Variation

What it is: The original Varitone, which appeared in such vintage Gibsons as the ES-345 and ES-355, is a controversial circuit. In lieu of standard treble-cut caps and pots, it employs a rotary switch, with each position routed through a different-sized capacitor. It also calls for an inductor, which creates a series of notch filters. (In other words, the circuit doesn't remove all signal above a certain frequency, but only a certain amount above and below that frequency.)

While the Varitone has its fans, it was never very popular. Detractors argue that it sucks tone, and its settings are too thin and "quacky" for many players. But even if you don't dig the original Varitone sounds, you can use its general concept to great effect. (For example, if you omit the inductor, you lose a bit of the peaky resonance that alienates some players.)

Diagram 3a



The benefits: Multiple capacitor schemes can provide instant access to a wide range of favorite settings, plus others not available from a conventional tone control. Instead of fiddling with a pot, you can leap to the desired tone with the flick of a switch.

The cost: When you replace a tone pot with a tone switch, you lose access to settings that "fall between the cracks" of the switch positions. You also need various switches and caps, depending on how you configure the mod.

How it sounds: I wired up a multi-cap, two-switch tone circuit in a "parts" Jazzmaster with P-90s and flatwound strings. **Ex. 3a** demonstrates my three treble-switch settings. You hear my three bass-cut settings in **Ex. 3b**. As with the PTB mod, the variations can be subtle with clean tones. But when I add a custom germanium booster in **Ex. 3c**, everything gets *much* more dramatic. The entire clip is performed on the bridge pickup—the only things changing are the tone switch settings.

How it works: A conventional tone circuit uses a single capacitor, which cuts tones above a specific frequency. (The cap value determines the cutoff frequency.) Advancing the pot directs more signal through the capacitor to ground for a darker sound. You're varying the *amount* of cut, but not the cut frequency.

Multi-capacitor switches let you choose your own set of cutoff frequencies, but once a capacitor is engaged, it's engaged all the way. So instead of cutting varying amounts of signal at a fixed frequency, you cut fixed amounts of signal at varying frequencies.

Diagram 3a shows the basic idea. The center lug of the rotary switch connects to lug 3 of your volume pot, like a conventional tone control. You weave capacitors of escalating value through the lugs lining the pot's perimeter, so that when you move the switch, a new cap is engaged. The other terminals of the caps go to ground—usually by bundling them together, wrapping them in heat-shrink tubing, and soldering the assembly to a ground point. (Most rotary switches let you specify the number of active positions via a notched washer on the pot's shaft.)

3a

This is a cool mod, but there's one good reason not to bother: Someone beat us to it. This is precisely how Stellartone's ToneStyler replacement tone pots work. They're fine products, and if you can afford the cost (models start at $75 street), I recommend them. **Photo 3a** shows my homemade part alongside a ToneStyler—which would *you* rather put in your guitar? (Plus, I hate the stiff, clunky feel of the commonly available rotary switches.)

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Instead, let's look at an approach that uses mini-switches rather than a big rotary switch. These limit you to three settings per switch, as opposed to as many as a dozen from a rotary switch. But there are at least two good reasons to go this route: It's easy to install mini-switches on almost any guitar, while adding pots can be problematic. And there are times when you might want to deploy your pots for something other than the traditional uses—controlling onboard effects, for example. (Which, by the way, is the subject of an upcoming *Premier Guitar* article.)

There are many types of mini-switches, but this project calls for the on/on/on DPDT variety, which have two rows of solder lugs and three switch positions. **Diagram 3b** shows how they work—and how to configure them as treble-cut and bass-cut controls.

A 3-position treble-cut switch. For a treble-cut switch, connect the input to the left-center lug, and a ground wire to the right-center one, as shown in **Photo 3b**.

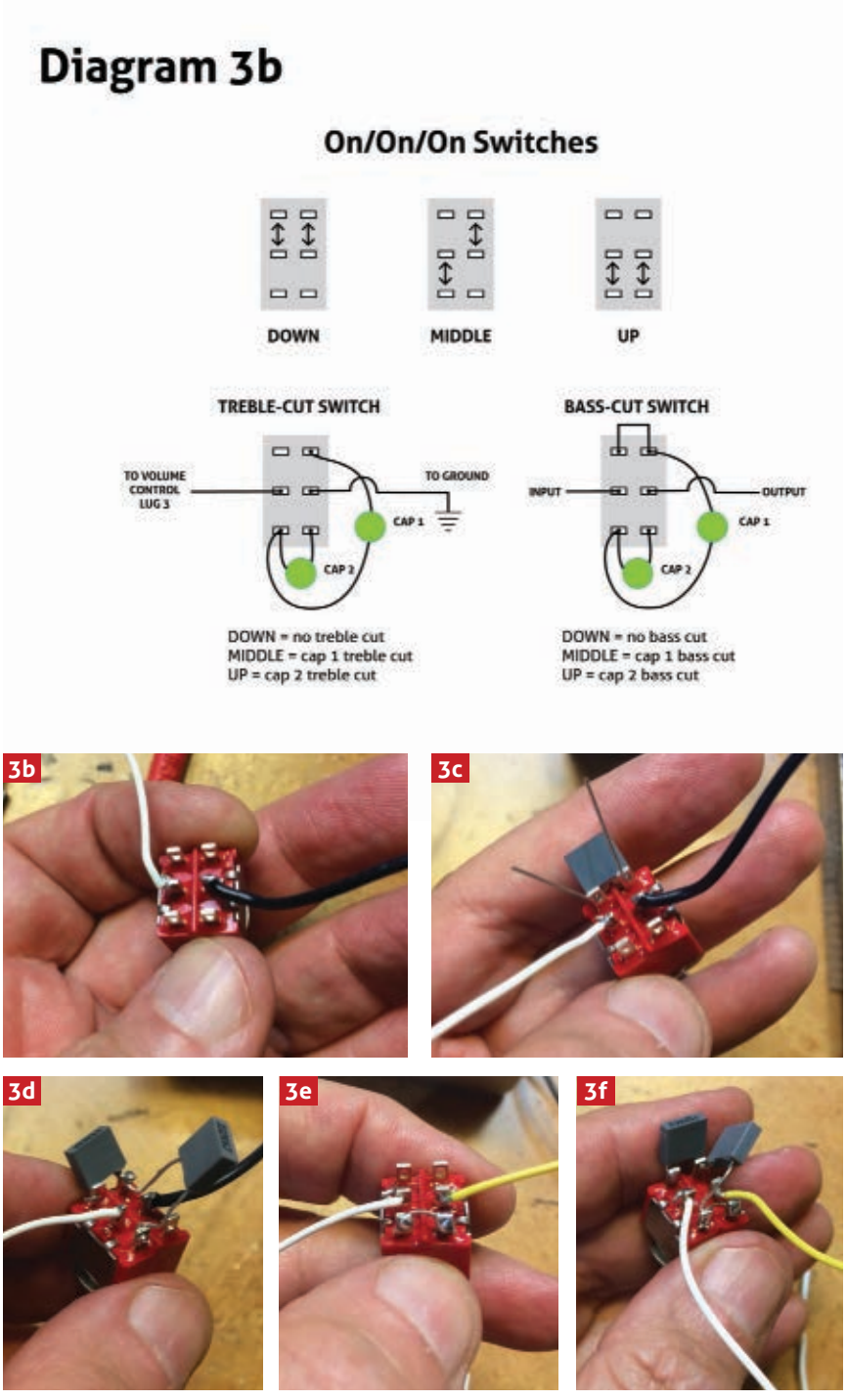
With the switch in the down position, the signal gets routed through whatever you connect to the top two lugs. In **Photo 3c** I've threaded the first of two treble-cut caps—a .022 µF (223)—through the top lugs.

Photo 3d adds a second tone cap—a .0033 µF (332)—between the lower-left lug and the upper-right one. This is engaged when the switch is in the middle position. There's nothing between the two lower lugs—when the switch is in the up position, no tone cap is active, and your tone is wide-open.

My cap values are customized for the way I tend to use treble-cut controls: either to take off a bit of edge, or to get very dark. Configured this way, I get an open sound when the switch is down. In the middle position, there's a slight treble cut from the relatively small .0033 µF cap. And in the up position, I get a much darker tone via the larger .022 µF cap. You can vary these values to taste—just remember that larger caps cut more treble.

A 3-position bass-cut switch. The wiring is similar for a bass-cut switch, but with one key difference: While the treble-cut routes signal to ground, a bass-cut must be inserted within the signal flow, just as in the PTB project above. The signal comes in via the left-middle lug, and exits via the right-middle one, as shown in **Photo 3e**. Also, I've added a jumper wire between the two lower lugs, so when the switch is in the up position, signal is routed through the switch without encountering a capacitor. (To reverse the orientation, just flip the switch 180 degrees.)

In **Photo 3f**, I've added two capacitors, as in the treble-cut circuit. I used a .0033 µF (332) for a slight bass cut in the middle position, and a .0015 µF (152) for a more extreme cut. Choose your own cap values, bearing in mind that the smaller the cap value, the greater the bass cut.



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CAPACITOR CHEAT SHEET

Are you confused by capacitor nomenclature? Join the club!

To gain a thorough understanding of how caps work and how they're labeled, Google "capacitor values." In the meantime, here's a handy cheat sheet showing the most common cap values for guitar applications.

The first number in each pair is the value in farads, the unit used to measure capacitance. The "µF" signifies microfarad—a millionth of a farad. People often substitute "uF" for "µF" to avoid the hassle of using a Greek letter. It's also sometimes written as "MFD."

The second number in each pair is the shorthand way of indicating these values, and that's usually the number you find on the caps themselves.

The values appear in ascending order. The ones highlighted in green are typical values for conventional treble-cut tone controls. The ones in red are good starting values for the bass-cut controls in these projects. If a particular value doesn't work for you, just step up or down in value till you hear what you like.

.0001 µF (101)
.00015 µF (151)
.00022 µF (221)
.00033 µF (331)
.00047 µF (471)
.00068 µF (681)
.001 µF (102)

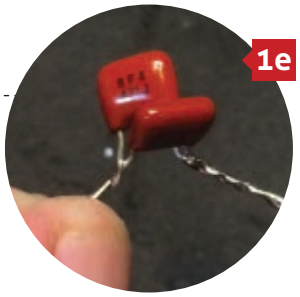
.0015 µF (152)
.0022 µF (222)
.0033 µF (332)

.0047 µF (472)
.0068 µF (682)
.01 µF (103)
.015 µF (153)

.022 µF (223)
.033 µF (333)
.047 µF (473)

.068 µF (683)
.1 µF (104)

Regarding capacitor material: What sounds best? Ceramic caps? Mylar? Metal film? Mica? Tantalum? It doesn't matter. In these applications, there's no audible difference between various cap materials. Use vintage-style caps if you care whether your control cavity looks vintage.



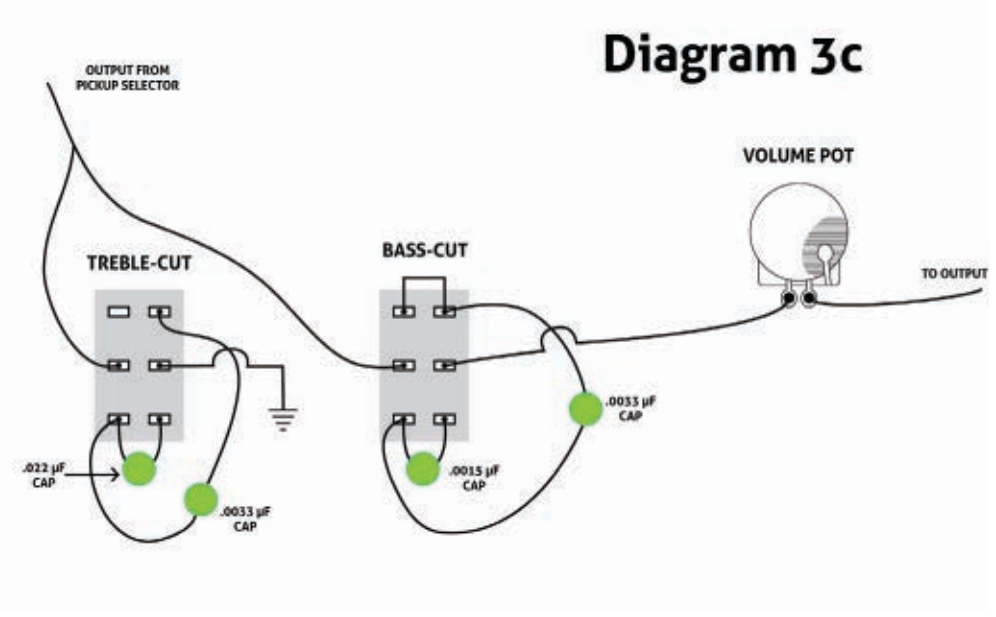
This is a controversial statement, so feel free to disagree. But don't expect to be taken seriously unless you can submit repeatable audio evidence demonstrating perceptible sonic differences between two caps of differing materials but equal value in standard guitar tone circuits. Anyone who does will receive my humble apology.

Capacitor hacks. If you find yourself lacking the perfect cap value, remember that you can wire together two caps in parallel, as shown in **Photo 1e**.

For once, the math is simple: The capacitance of parallel caps is equal to the sum of their values. For example, if you don't have a .0015 µF, you can make one by soldering together two common caps, a .001 µF (102) and a .00047 µF (471) for a total capacitance of .00147 µF—well within the tolerance range of a .0015 µF cap.

Finally, **Diagram 3c** shows my two-switch/six-setting tone control as heard in **Ex. 3c**. With the values I used, the result is similar to the PTB mod above, but with two added advantages: I can toggle quickly to the exact tone I desire. And by drilling two small holes in my pickguard to accommodate the mini-switches, I freed up my former tone pot for another task: controlling an onboard booster.

Mods à la mode. I urge adventurous solder jockeys to try all three mods. They're easily reversible (except for pickguard drill holes), and even if you don't dig the results, I'd be surprised if the process didn't suggest alternate ideas more to your taste. You'll learn volumes about guitar electronics as you uncover your ultimate mod.



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Decouple Your Les Paul's Volume Controls

BY DIRK WACKER

Here's an easy but effective mod for Les Paul slingers that solves a problem they've been living with since the model's introduction more than a half century ago. This project also applies to most other guitars with dual humbuckers, individual master volume and master tone knobs for each pickup, and a 3-way pickup selector switch.

The problem (or not). The Les Paul circuit dates back to the mid '50s. It has changed slightly over time—Gibson used several different tone caps and experimented with tone-pot wiring—but essentially, modern Les Pauls employ the original wiring.

One thing Gibson did *not* change was the concept of coupled volume pots. You know how this works: With an independent pair of controls for each pickup and a 3-way toggle switch, you can dial in your lead volume and tone using the bridge pickup, set up a rhythm tone using the neck pickup, and then quickly change from lead to rhythm and back using the 3-way switch. This works great—two preset sounds at your fingertips.

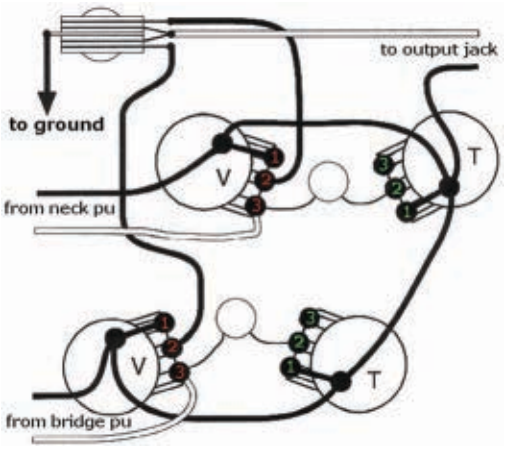
But Les Paul players know what happens when you use the middle position of the 3-way switch: The pickups are wired together in parallel, so when both pickups are engaged, rolling down the volume of one even slightly while leaving the other fully open makes the latter much louder than its mate. Even worse, backing down just one of the volumes to zero shuts off the entire guitar.

Why is this? Because the two volume controls are not decoupled, they interact. With a passive circuit like this, it's just the nature of the beast. Consequently, the dual-humbucker world divides into two opposing camps: The first doesn't consider this interaction a problem. It's simply part of the game—get used to it. The other camp regards this interaction as a system error and tries to eliminate it.

Now, the only *real* solution for this problem—assuming it's an issue for you—is to switch to active circuitry. All other "solutions" are compromises that may or may not appeal to you. You must let your ears decide.

Swap it out. It's easy to wire a Les Paul so the volume controls work independently: You simply wire the volume pots backwards. (This is how some Rickenbacker guitars and early Fender Jazz basses are wired.)

First, study the wiring diagram shown here. It represents the modern factory wiring typically found in Les Pauls. The black wires are ground; the white wires are the hot connections from the pickups and to the output jack. The black wires that run from pot to pot form the "ground bus." Be careful not to close this ring—leave the connection between the two volume pots open, as shown in the wiring diagram, otherwise you'll create a perfect antenna that picks up all kinds of funny noises. (For a noise-free circuit, it's very important that the ground bus uses a solid, not too thin wire and strong soldering spots.)



Wiring diagram courtesy of singlecoil.com.

Now, simply interchange connections 3 and 2 on both volume pots, including the tone cap connections. That's it! Leave all connections on the tone pots untouched. You've now wired both volume pots backwards, thus decoupling them.

Time to network? There's a big downside to this mod: When the pickups are wired backwards, they "see" less resistance, and the output impedance rises. This results in dramatic treble loss when you roll back the volume. It's an idiosyncrasy of passive guitar systems: When you turn down the volume, even just a bit, treble loss is *not* proportional: A small cut in volume creates a far greater loss in treble response. And the treble loss is even worse when the volume pots are wired backwards.

You can combat this by adding a treble-bleed network between the input and output of each volume pot. This usually consists of a small capacitor, often with a resistor in series or parallel. Simply solder the treble-bleed network between lugs 3 and 2 on each volume pot and see if it sounds right to you.

As far as capacitor and resistor values, that depends on how much treble you like. Some people prefer using a capacitor only (aka "treble bypass cap"), while others like a cap with a resistor in parallel. A useable range for the cap is from 220 pF to 680 pF; a resistor wired in parallel can range from 150k Ω to 330k Ω. A popular choice for a cap-only solution is 330 pF. For a network solution, many players like a 470 pF cap with a 330k Ω resistor wired in parallel. You could start with this and see what sounds best to you. Small silver mica caps sound excellent for this mod.

Remember, passive circuitry can never *add* anything that isn't already there, but it can reshape the tone by deemphasizing certain frequencies, which makes others more prominent. This treble-bleed network filters bass so the highs are more pronounced.

Until next time, keep on modding!

DIRK WACKER *lives in Germany and is fascinated by anything related to old Fender guitars and amps as well as all vintage German guitars. When not playing or working on his guitar workbench, he writes for several guitar mags. He is also a hardcore DIY-er and runs an extensive webpage (singlecoil.com) on the subject. Reach him at info@singlecoil.com.*

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Can My Fender Amp Sound More Like a Marshall?

BY JEFF BOBER

Q: **Hi Jeff,**
I need to refurbish an '86 Fender Concert that has been sitting idle for 10 years. I replaced the original speaker with a Celestion G65 and would like to put in a 30-watt Celestion G12H(55). I'd also like to replace capacitors and resistors to add a little Marshall bite to this old amp. (My ideal sound would be a JTM45 plexi, but I can't afford one right now.) I usually have such work done by a professional repairman. Do you have any suggestions for him?
Thanks,
Tony Martinez

A: **Hi Tony,**
My first thought was there's no way to get your Concert even remotely close to a JTM45—the amps are just too different. But if we disregard the gain channel and focus on the normal channel, we probably can get the voicing closer to that of a JTM45. The JTM45—like standard four-input 50- and 100-watt Marshalls—is basically a clean amp, with most of its distortion characteristics coming from overdriving the output stage. There's not a lot of front-end gain, much like the normal channel of your Fender. The gain structure of the two amps is rather similar, even though your Fender's normal channel has an extra gain stage. (This stage is necessary as a mixer for a reduced dry signal and the reverb return signal, and it is not used to generate overdrive.)

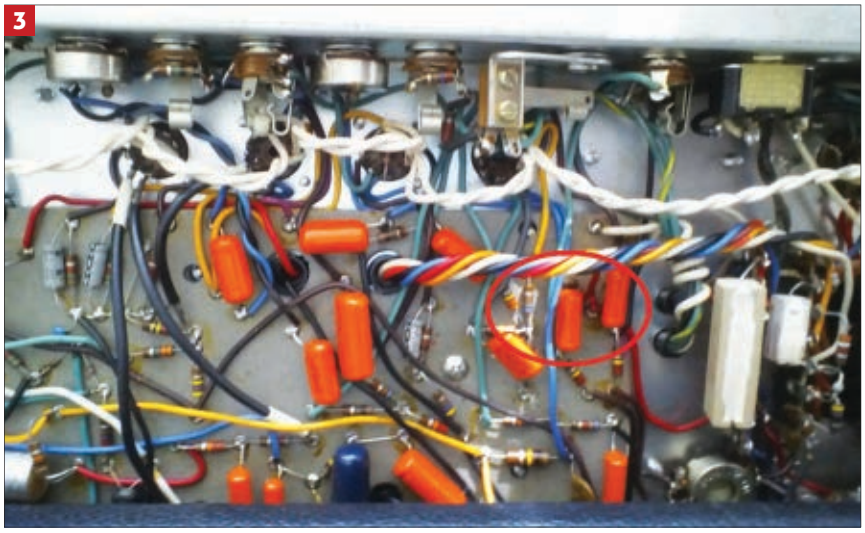
There are still many differences between these two amps: One has reverb, and one doesn't. One has the tone stack after the first gain stage, and the other after the second stage. One uses a cathode follower-driven tone stack, the other a plate-driven stack. And they have different transformers, which can also make a big difference. Still, let's see if we can get your Concert closer to your preference.

Let's start with changing a few things in the tone stack (**Photo 1**), starting with the capacitors. A standard Fender tone stack uses 0.1 µF and 0.047 µF capacitors. Remove these and install two 0.022 µF/600V caps. This adds midrange content, which Fenders seem to lack (not necessarily a bad thing). By the way, you'll find these 0.022 µF caps in my very favorite Fender, the Super Reverb.

The JTM45—like standard four-input 50- and 100-watt Marshalls—is basically a clean amp, with most of its distortion characteristics coming from overdriving the output stage.

Next, we'll change the slope resistor from a 100k to a 56k. This alters the signal balance between the treble and mid/bass sections. The Concert amp does not have a mid control, but if you feel a need for more or less mids after you've done the modifications, you can always change the value of the 6.8k resistor connected to the bass pot. This resistor approximates a setting of 6 or so on what would normally be a 10k control, but you can install any value between zero and 25k to set the mids. Hey, you can even install

WARNING:
All tube amplifiers contain lethal voltages. The most dangerous voltages are stored in electrolytic capacitors, even after the amp has been unplugged from the wall. Before you touch anything inside the amp chassis, it's imperative that these capacitors are discharged. If you are unsure of this procedure, consult your local amp tech.



a 10k or 25k pot in the front panel's #2 input if you really want to get creative!

Also, you'll find an 820k resistor between the treble pot wiper (center terminal) and the volume pot (**Photo 2**). Let's change this to a 470k resistor, a typical value for the mixing resistor for the two channels in a JTM45. This sends a stronger signal into the next stage of the amp. If you decide you'd like even more drive, lower this value to 270k, the value found in early JTM45 models. This part of the circuit also includes a bright switch—that's handy. In the off position, the circuit resembles the normal channel of a 45. When the bright switch is engaged, it adds a bright cap like the one found in a JTM's bright channel. And while we're in this area of the circuit, let's remove the 25 µF cathode bypass capacitor on V2b and replace the 1.5k resistor with a 680 Ω. These values, typical for the second gain stage of a 45, prevent an overabundance of low frequencies, which tend to make things a bit mushy and lessen the amp's articulation.

Finally, let's modify the phase-inverter circuit (**Photo 3**), which tends to open up the amp's sound and feel. V7 is the phase inverter, which uses two 330k grid resistors. Replace these with 1M resistors. You'll also find a 680 Ω cathode resistor. Replace it with a 470 Ω. Attached to it is a 6.8k. Replace that with a 10k. Next, the output caps: On pins 1 and 6 of V7 you'll find 0.01 µF caps. Replacing these with 0.1 µF 600V caps drives the output tubes with a much fuller signal.

These mods should get your amp closer to your JTM45 ideal. Some of these changes affect the amp's drive channel, but my guess is you'll be using its normal channel with some great pedals, just as you would with a real JTM45.

JEFF BOBER, *is one of the godfathers of the low-wattage amp revolution. He co-founded and was originally the principal designer for Budda Amplification, though he launched EAST Amplification (eastamplification.com) in 2010. You can catch his podcasts at ampsandaxescast.com or email him at pgampman@gmail.com.*

A Brief History of Time (-Based Effects)

BY PETE CELI

Nowadays flanging, chorusing, and echo are common time-based effects, but you may not realize that they have origins in mid-20th-century recording technology. All three originated as double-tracking effects, used to create the impression of two parts when in fact only one part was performed. They all work by creating a replica of a signal, and then mixing the original and the replica together with slight timing differences between the two.

Les Paul was a pioneer of doubling and multi-tracking techniques. He used acetate disks to create elaborate orchestrations and harmonies with just one or two musicians, back before magnetic tape was common. But the advent of studio tape recording allowed a more feasible use of special effects to enhance the music beyond simply capturing a performance. Let's look at some of the most common effects.

As music became more electrified, producers and recording engineers sought ways to make everything sound bigger—and what better way than to turn the recording studio into a virtual concert hall?

Slap Happy

The slapback echo heard on many rockabilly and rock 'n' roll records of the '50s was the first such effect to gain widespread use. As music became more electrified, producers and recording engineers sought ways to make everything sound bigger—and what better way than to turn the recording studio into a virtual concert hall?

By using the inherent delay between the record and playback heads (determined by tape speed and distance between the recorder's heads) they mimicked the effect of a sound echoing off the "back wall." The tape deck's two speed options allowed for two fixed delay times, generally in the 70 ms to 150 ms range. These technical limitations defined the slap effect that became a trademark sound of these recordings.

Fab Flange

Legend has it that in the '60s, John Lennon grew tired of re-singing his vocal parts in the studio to add layers, so recording engineer Ken Townsend came up with the idea of sending the vocal track's sync signal (from the record head) to a second tape deck's input. By slightly offsetting the speed of the second deck, its playback could have a short but controllable delay (typically 10 ms to 20 ms) relative to the original deck's playback head.

Additionally, the second deck's speed could be manipulated to create movement between the two signals, simulating two independent voices from a single performance. Voilà! Double-tracking chorus was born. Now John could enjoy a cigarette while the recording engineers sweated the details.

If the second deck's speed was faster than the first's, its sound would appear before the first deck's, resulting in "through zero" flanging, a trippy sound that evoked jet engines and space/time warps.

Chips Ahoy!

By the 1970s, the advent of LSI (Large Scale Integration) semiconductor chips led to analog bucket-brigade delay line ICs. These opened up the possibility of replicating these tape-based effects in a simple and repeatable manner. But the stompboxes that employed these chips offered more than convenient simulations of tape effects—they had their own unique mojo.

The digital VLSI (Very Large Scale Integration) chips of the '80s allowed greater fidelity than the previous bucket-brigade ICs. The era's new rackmounted delays provided high-bandwidth time-based effects with new programming flexibility and preset storage.

Nowadays we have enormous computing power available on a single chip. Still, when creating modern double-tracking effects, we often invest much effort in replicating the sound and soul of the primitive time-based effects painstakingly developed by the recording engineers of the '50s and '60s.

PETE CELI *is the DSP Engineer at Strymon.*

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http://bit.ly/H9Core

Strap Locks

This month we take a look at some of the options out there to help ensure your axe stays in your hands, and not on the ground. CAN WE PUT SOME MORE TEXT IN HERE TO MAKE IT A WEE BIT LONGER. THANKS A MILLION.

1
ISH
Strap-Ons
Made from recyclable high-quality neoprene rubber and designed to fit almost any strap button for guitar or bass. Installation is simple: Slip one over your strap and button.
Street $6 (for 12-pack), $15 (for 30-pack)
ishcase.com

2
ERNIE BALL
Super Locks
These have a push-button, quick-release design with positive locking pins to ensure the locks won't release until buttons are completely depressed. Super Locks are case-hardened and steel-plated. Available in black, gold, and nickel.
Street $24.99
ernieball.com

3
D'ADDARIO
Rotating Elliptical End Pins
These chrome end pins were designed to secure the strap to your guitar without bulky hardware or having to dedicate a strap to a specific guitar. The two-piece elliptical shape combines function and style, they are easy to install, and work with all guitars and basses.
Street $6
daddario.com

4
LOXX
XL Strap Locks
Made for extra-thick straps and available in black, chrome, and nickel. Allows for one-handed "easy on/easy off" engage and release action, yet can still resist a pull force of 220 pounds.
Street $23.60–$39.99
loxxusa.com

5
DUNLOP
Straplok Dual Design Strap Retainers
Release-tested up to 800 pounds of pull, Straplok straps feature a 360-degree groove-and-ball design that allows full, catch-free rotation, and are available in four finishes.
Street $11.99–$19.99 depending on finish
jimdunlop.com

6
FENDER
"F" Strap Locks

Available in chrome, gold, and black, these strap buttons for the guitar and locks for the strap keep your favorite guitar or bass safe and secure. They can be fitted to nearly every Fender instrument manufactured since 1946.

MSRP $18.99

fender.com

7
Q-PARTS
Gold Pearl Strap Locks

From basic to flashy like the gold pearl set shown here, each set comes complete with strap buttons, screws, rings, and locks. Decorative rings are available for players who already own strap locks

Street $24 and up

qparts.com

8
GROVER
Strap Locks

These strong and lightweight strap locks feature the quick-release mechanism that players want and need to easily remove the strap. Available in nickel, chrome, gold, and black.

MSRP $22.95–$26.95

grotro.com

9
SCHALLER
Security Locks

This widely used system comes in eight finishes so players can closely match other hardware on their axes. Extra long screws are included with all Security Locks for use on Gibson models.

Street $14.99–$23.99

schaller-electronic.com

10
GROLSCH LAGER
Swing-top Bottle Washers

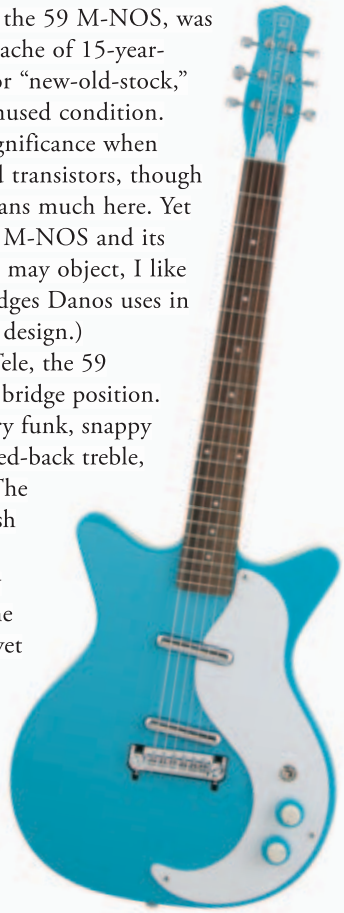
Guitarists and bassists have long utilized the red rubber washers from these swing-top bottles as a thrifty strap-lock solution. The bonus: These DIY strap locks come with beer attached.

Street price varies according to thirst.

grolsch.nl

Quick Hits

DANELECTRO
59 M-NOS
By Shawn Hammond



Danelectro's latest 6-string, the 59 M-NOS, was inspired by a rediscovered cache of 15-year-old pickups. NOS stands for "new-old-stock," meaning vintage parts in unused condition. The term can have sonic significance when applied to certain tubes and transistors, though I'm skeptical whether it means much here. Yet I'm a big believer in the 59 M-NOS and its pickups. (And while purists may object, I like the modern intonatable bridges Danos uses in lieu of the original wooden design.)

Compared to a Strat or Tele, the 59 M-NOS sounds thin in the bridge position. But it's sparkly-clean for wiry funk, snappy for country twang with dialed-back treble, and razor-sharp with fuzz. The mid position is clear and lush for clean chords, nasty for overdriven slide, and sinewy for Indian-flavored runs. The neck unit is lavishly round yet chimey. "NOS" may be a stretch, but this guitar is no B.S.

TEST GEAR *Jaguar HC50, Goodsell Valpreaux 21, Pigtronix Fat Drive, Keeley Compressor*

RATINGS

$349 street, danelectro.com

Tones	4.5
Ease of Use	4
Build/Design	4
Value	5

PROS Lively, harmonically rich tones. Solid setup. Incredible deal.

CONS Concentric knobs can feel clumsy. Forward-facing saddle screws difficult to adjust.

CLICK HERE TO HEAR *this guitar at premierguitar.com/sep2014*

YONAC
ToneStack
By Jason Shadrick

The idea of an entirely virtual rig isn't as foreign to the current generation of up-and-coming guitarists as it was even five or 10 years ago. ToneStack, the latest iOS app from Yonac, is an all-in-one suite that speaks to a wide range of digitally adventurous tone tweakers. For the cost of a pack of strings, you get a good selection of amps, cabs, mics, and effects, as well as an amazing amount of flexibility in designing your signal chain. If your palate goes beyond the included assortment of toys, ToneStack offers additional amps and effects as in-app purchases.

Once you pull up a preset, you can drag and drop each element of your signal chain to your heart's content—even A/B cabs, amps, or entire effects chains. At times, the virtual knobs can be a little difficult to dial in accurately, but for the most part, the app feels snappy and responsive. I plugged in with a Mexican-made Stratocaster and was able to dial up reasonable takes on Gilmour's saturated "Pompeii" lead tone and R.E.M.-esque warbly tremolo. A 2-track recorder is also included, which makes bouncing and sharing riffs and demos a snap.

TEST GEAR *Fender MIM Stratocaster, Apogee JAM*

RATINGS

$4.99 street, yonac.com

Tones	4
Ease of Use	3
Build/Design	3.5
Value	4.5

PROS Affordable. Includes 20 effects. Inter-App Audio and MIDI functionality.

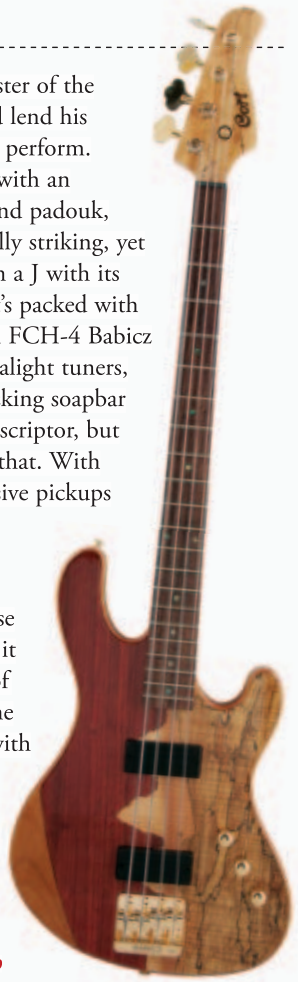
CONS Difficult to dial in specific settings on the more complex effects. Some of the distortion pedals sound thin.

CLICK HERE TO HEAR *this app at premierguitar.com/sep2014*

CORT

Jeff Berlin Rithimic Bass

By Rich Osweiler



Jeff Berlin is a contemporary master of the electric bass, so it's not likely he'd lend his name to an instrument that can't perform. Boasting an alder body adorned with an artistic veneer of spalted maple and padouk, Cort's new Rithimic bass is visually striking, yet tasteful. It draws inspiration from a J with its body shape and thin neck, and it's packed with a component set that includes an FCH-4 Babicz full-contact bridge, Hipshot Ultralight tuners, and Bartolini Jeff Berlin humbucking soapbar pups. Versatile is an over-used descriptor, but the easy-playing Rithimic is just that. With help from the alder body, its passive pickups deliver warmth and punch with excellent clarity in the lows and mids that will work for a variety of styles. The setup out of the case needed no adjustments. All said, it *will* cost some coin. At just shy of a grand, the Rithimic is not in the price range some may associate with Cort instruments, but when you consider the build, pickups, and hardware, it's deserving of a good look.

TEST GEAR *Gallien-Krueger 800RB head, TC Electronic RS410 cab*

RATINGS

$979 street, cortguitars.com

Tones	4.5
Playability	4.5
Build/Design	4.5
Value	3.5

PROS Quality components, attractive aesthetics, solid play.

CONS Price is on the high side.

CLICK HERE TO HEAR *this bass at premierguitar.com/sep2014*

EARTHQUAKER DEVICES

Terminal

By Charles Saufley

EarthQuaker Devices fears no micro niche nor pedal cult. How else to explain the Terminal, a fuzz that refines the glorious-sounding and dunderheaded Shin-Ei FY-2 Companion. Like the FY-2, the Terminal isn't crazily versatile. It's bossy, bassy, compressed, and squishy—a veritable nightmare for the shred set. But one man's dynamics-squashing anachronism is another's Excalibur: If you love Neanderthal fuzz, the Terminal is pure brilliance.

The original FY-2 was limited in that it was missing high mids and top end, which rendered it all but inaudible in loud bands. The Terminal addresses these liabilities with more expansive gain (fuzz), midrange ("voice"), and treble controls. They make the Terminal a viable stage pedal instead of a practice-space wallflower. If you're a fan of anything from lysergic garage buzz to Neil Young's fractured, exploding-Deluxe tones, you'll find a texture—or 20—to love here.

TEST GEAR *Fender Jaguar, Fender Stratocaster, DeArmond Jetstar, Fender Tremolux*

RATINGS

$165 street, earthquakerdevices.com

Tones	4.5
Ease of Use	4.5
Build/Design	4.5
Value	4

PROS Unique, smooth, and rowdy-sounding fuzz. Surprising range and color.

CONS Compressed, squishy voice.

CLICK HERE TO HEAR *this pedal at premierguitar.com/sep2014*

MATON
SRS 70

By Adam Perlmutter

Though they've never made a huge splash beyond Australian shores, Maton has been a fixture of the Down Under guitar scene since the 1940s. Despite their modest international profile, Maton guitars have made cameos in the hands of legends (George Harrison used an MS-500 briefly at the dawn of Beatlemania, and Keith Richards used a Maton archtop to record the throbbing rhythm guitar that drives "Gimme Shelter"). Josh Homme and Split Enz/Crowded House mastermind Neil Finn are also Maton loyalists. While the highest profile Maton users have been electric players (Tommy Emmanuel and Finn are notable exceptions) the company's roots are in acoustic flattops, and acoustics still account for much of their output.

The Maton SRS 70 is an elegant cutaway dread with simple appointments. It's also a study in Maton's flattop design idiosyncrasies, which include use of Australian tonewoods and a factory-built Maton-built AP5 Pro pickup system. The sum of these parts is a guitar that impresses with its quality, playability, unique voice, and broad sonic potential.

Oz Wood On Board

While the Maton has a Sitka spruce top, Maton dipped into their expansive store of Australian tonewoods for the Tasmanian blackwood back and sides and Queensland maple neck. All of the woods are beautiful. The top has a tight, uniform grain. The quarter-sawn Tasmanian blackwood (a koa relative) has

a unique reddish-brown coloring. The Queensland maple is a warm, pale brown. The dark, waxy rosewood bridge and fretboard could almost pass for Brazilian at a glance.

Ornamentation is sparse and handsome. The sapele rosette and headstock cap lend an elegant touch. The fretboard, with its mother-of-pearl dot inlays and scrolled edge above the soundhole, recalls a Gibson L-5. My only aesthetic complaint is that the preamp, mounted on the bass side, disrupts the otherwise organic feel of the instrument. So does the quarter-inch output jack, which resides on the lower treble bout rather than in the endpin.

Those details aside, the SRS 70 is a study in thoughtful craftsmanship. The frets are smoothly polished and completely free of jaggedness. The bone nut and saddle are perfectly notched. All the binding is perfectly flush with the body, and the natural satin finish feels uniformly smooth. Things are in tip-top shape inside the body too—bracing and kerfing are neatly sanded, and there's not a drop of excess glue.

Maton's resourcefulness extends beyond tonewoods sourced from their figurative backyard. All their pickup systems—including the AP5 Pro here—are made in house.

Slinky and Soulful

The SRS 70 showed up with fairly low action that makes barre chords feel as easy as cowboy chords. Single-note picking feels relatively effortless, and the Venetian cutaway provides access all the way to the 21st fret (which is a half-step above the highest fret on most dreadnoughts).

First-position chords sound slightly bright, but well balanced, with excellent note-to-note separation. It's not the loudest of guitars, but it sustains impressively. It also maintains a rich, even voice for barre chords higher up the neck, and you can hear the harmonic detail in both triadic voicings and more complex harmonies. The natural harmonics at the 12th, 7th, and 5th frets ring with luscious clarity.

Flattpicked, the guitar has a crisp, clear voice that takes advantage of its inherent brightness without sounding brash. The fundamental flatpicked tone works great for everything from bluegrass to Celtic to modern jazz. The Maton's 1 3/4" nut is ideal for fingerpicking. The big body demands a little extra force from your pick hand to get the fullest sounds. But again, the note-to-note definition shines on fingerpicked note clusters, which makes the guitar a great vehicle for alternate tunings like open-G and DADGAD. Only when you tune down to open-C does the Maton's less bass-heavy voice sound out of place.

The SRS 70's AP5 Pro electronics incorporate both an internal cardioid microphone and piezo elements. Powered by two AA batteries, the preamp has intuitive controls: bass, treble, and volume sliders, plus mini-knobs for midrange adjustments and blending the microphone and piezo sounds.

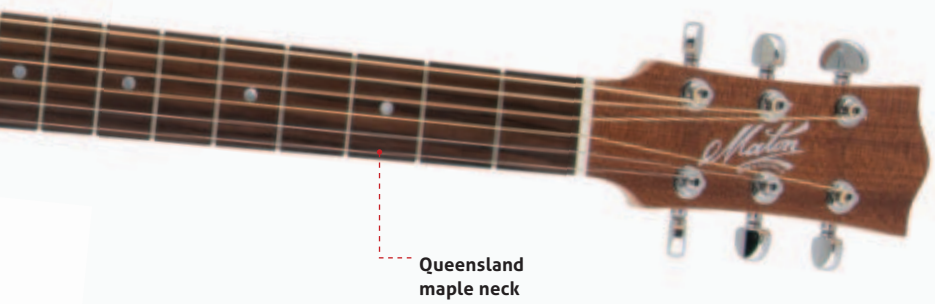
Plugged into a Fender Acoustasonic amp with a flat setting, the SRS 70 sounds warm, natural, and free of the tubbiness and quacky artificiality that plague so many acoustic-electric instruments. The preamp system is quiet and hum-free, and the sliders have smooth action, wide sweep, and a linear feel that expands tonal possibilities in amplified settings. Better still, the microphone is mounted directly to the preamp's casing via an adjustable arm, so you can tailor the balance for varying performance conditions.

The Verdict

Maton's SRS 70 is a fine modern dreadnought that's exactingly built and a joy to play. Its attractive, well-balanced voice is brighter and bit less boomy/bass-heavy than many dreads, making the guitar unusually adaptable. It's also a great match for the onboard electronics, which communicate nuances with uncanny naturalness.

While there's no shortage of excellent options in the two-grand price range, the SRS 70 stacks up favorably to the competition while standing apart from the crowd. Many guitars have idiosyncrasies that don't provide substantial sonic advantages, but the SRS 70 feels fresh *and* like a blank slate that will work in any style.

CLICK HERE TO HEAR this guitar at premierguitar.com/sep2014



Queensland maple neck

RATINGS

Maton SRS 70

$2,069 street
maton.com.au

Tones	
Playability	
Build/Design	
Value	

PROS All-solid woods. Roadworthy construction. Fine unplugged voice. Versatile electronics.

CONS Limited US dealer network.

BEIGEL SOUND LAB/MU-FX Tru-Tron 3X

By Charles Saufley

Stompbox history is populated by crackpots and geniuses. But few pedal builders are as fit for inclusion in the latter category as Mike Beigel. In the early '70s, Beigel co-founded Musitronics, which built some of the most coveted and colorful effects ever conceived: the Mu-Tron Bi-Phase, the Mu-Tron Flanger and Phasor, the Vol-Wah, and the Mu-Tron III.

When Mu-Tron bit the dust (after acquisition by ARP in 1979) Beigel took his curiosity and engineering chops elsewhere—helping develop, among other things, miniscule radio-frequency ID chips to track animals. But like many instrument developers, Beigel found it hard to stay away from the biz. He marks his return with the Mu-FX Tru-Tron 3X, an enhanced version of the Mu-Tron III envelope filter.

World Beyond Wah

Even some seasoned players struggle to define the function of an envelope filter (aka an auto-wah). Basically, it uses an adjustable voltage-controlled frequency-peak filter to emphasize a given frequency range. Meanwhile, an envelope follower triggers the effect in response to your playing dynamics. Think Jerry Garcia's bubbling mid-'70s leads, Bootsy Collins' vocalic bass bombs, and Stevie Wonder's funky clavinet on "Higher Ground." All were created with an original Musitronics Mu-Tron III.

The optical filter-control circuitry and control set of the Mu-Tron III is at the foundation of the Tru-Tron 3X. It has two mini-toggles for envelope drive and filter range. The envelope drive switch selects between rising (updrive) or dipping (down drive) frequency sweeps. (These simulate heel-to-toe and toe-to-heel wah action, respectively, only without the rocker pedal.) The filter range control shifts the filter-drive range to high-frequency or low-frequency input. The mu control (labeled gain on the original) sets the level of the signal driving the envelope follower and filter, determining the effect's dynamic response. The peak knob controls the filter Q or emphasis of the frequency sweep, while the mode knob selects between low-, high-, and band-pass filters, plus a useful new mix mode that blends dry and filtered signal.

The most significant new features are the preamp knob and switch. The pre setting effectively splits the drive function, creating separate amplitude drives for the filter-audio input and the envelope sweep, expanding the palette of available sounds.

Vowels Spoken Vociferously

Like any envelope filter, the Tru-Tron relies on picking dynamics and input gain to determine how intensely the filter performs, so it can take a little practice to adjust the settings to suit your touch. (Soft pickers or low-output pickups might benefit from higher mu settings, while more dynamic pickers or hotter pickups might work better with a lower one.) But once you've established an appropriate gain level, it's easy to hear what makes this effect intoxicating for so many players.

Because the effect can completely alter the character of a single note, it's well suited to concise, percussive, and melodic phrases. Fast flurries tend to get messy, though lower peak settings and adjustment of the internal response trimpot can help remedy this. The Tru-Tron

can transform a simple quarter- or eighth-note melody into something *much* more colorful. The pedal's Garcia-inspired setting is great for exploring this capability. It uses the low-pass filter, which lends a deep, vocal quality to each note.

Changing the filter type has a profound effect on tone and dynamics. High-pass imparts an almost electric sitar-like flavor, with a slow-blooming and fast-decaying high-midrange tone. The band-pass filter tends to remove low end, producing rich but compact vowel-like tones ideal for doubling a bass line without muddying a mix. The mix setting, new on the Tru-Tron, blends in dry signal for a subtler effect. Like all the Tru-Tron's controls, peak is sensitive and wide-ranging. High values work well for percussive, mid-tempo leads that leave room for the filter to open and close between notes. Low to medium settings yield more articulation.

Preamp is one of the most significant and unique Tru-Tron features. When switched on, it drives the filter independently from the envelope, enabling muscular, overdriven tones that work with the envelope more seamlessly and harmoniously than a fuzz, distortion, or overdrive would. This opens up a whole world of heavy soloing textures. These can be dynamic alternatives to phasing or flanging, and more unique-sounding than a wah sweep working a distorted tone.

The Verdict

The Tru-Tron 3X captures the deep, rich, vocal, expressiveness of the original Mu-Tron III (no mean feat) while adding enhancements that expand its potential. It's a *very* powerful stompbox—and that's before you factor in how well it works with bass and keys. It's not for everyone, and some players enticed by the concept may lack patience for the experimentation the pedal demands. But for those willing to tinker, the Tru-Tron 3X can provide unexpected musical potential that extends far beyond the obvious Garcia and Bootsy-styled applications.

CLICK HERE TO WATCH this pedal at premierguitar.com/sep2014

RATINGS

Beigel Sound Lab /Mu-FX Tru-Tron

$295 street
mu-fx-trutron3x.com

Tones	
Ease of Use	
Build/Design	
Value	

PROS **Authentic Mu-Tron III tones. Independent filter gain for overdriven sounds. Excellent build quality.**

CONS **Miss that cool blue and silver enclosure! Not super-intuitive.**

LOLLAR PICKUPS™

the Straight Truth About Pickups by Jason Lollar

The "magic" found in some (but not all) classic vintage pickups was created by accident. Don't let anyone tell you different. And over time, some pretty stellar accidents happened. The only way to recreate that magic is to study more than a few exceptional examples of all the classic pickup types, while acquiring a thorough understanding of exactly what materials were used and precisely how each pickup was constructed and wound. Only then is the "magic" repeatable, if you are willing to spend the time and money required to chase the dragon. I am.

I personally design and wind over 30 different pickup models, including all the vintage classics, many obscure works of art known only to lap and pedal steel players like Robert Randolph, and even a few of my own designs that never existed in the past.

I invite you to visit our website for sound clips, videos and current product information, or call us for a free product highlight brochure.

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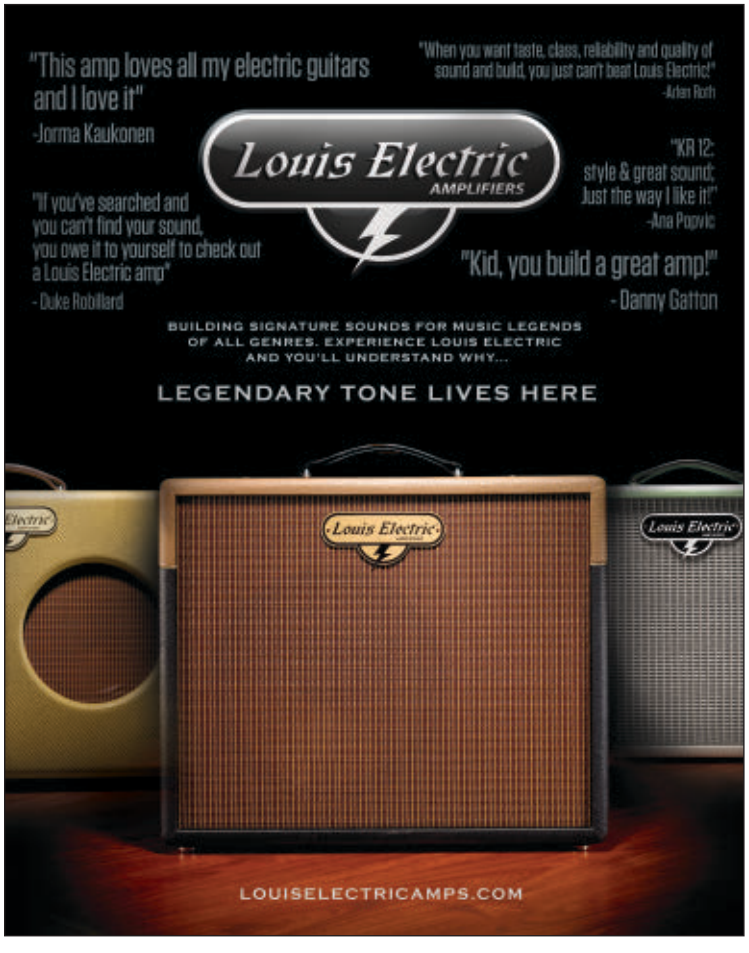
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"When you want taste, class, reliability and quality of sound and build, you just can't beat Louis Electric!"
-Arlen Roth
Louis Electric
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-Ana Popvic
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- Duke Robillard
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UNIVERSAL AUDIO
Apollo Twin

By Joe Gore

Universal Audio's rackmountable Apollo audio interface was a hit upon its 2012 release. Its stellar preamps, lucid design, and innovative software were perfect fits for project studios requiring great-sounding components and flexible operation, but not a vast number of preamps. (The original Apollo has four, plus additional analog and digital line inputs.)

I was an early adopter—Apollo replaced two more cumbersome systems in my home studio. Two years later I have nothing but praise for the device. My only beef: I wanted a smaller version for mobile work.

Now it's here. The Apollo Twin is a 6" x 6" x 2" tabletop unit offering many of its big brother's best features in a gig-friendly format. It's a remarkable tool for the digital guitarist, though it requires a recent-model Mac with a Thunderbolt port running OS 10.8 or higher, plus a DAW. (UA currently supports Logic Pro, Pro Tools, Cubase, and Live.) There is no PC-compatible version.

Model Interface

The Apollo line offers more than great-sounding A/D/A conversion. It's also a host for Universal Audio's plug-ins, allowing you to run more plug-ins than your computer could otherwise handle. Such "assisted" hosting is increasingly unnecessary given today's faster computers, but Universal Audio's plug-ins are among the best in the industry. For many users, access to them is a major motive for using Apollo, especially since UA's plug-ins *only* run on systems incorporating UA hardware.

The Twin comes in two versions: a dual-processor model that streets for $899 (reviewed here), and a $699 single-processor version. The larger version has twice the processing power, but beyond that, the models are identical. At risk of oversimplifying, I'd guess that the single-processor model is adequate for digital guitar gigs, but that you'd want the larger one for mixing multitrack sessions. See the usage charts on the UA website to determine which version best suits your processor needs.

UA specializes in officially licensed software versions of classic analog gear, forging deals to create software replicas of many popular studio components, including preamps, EQs, compressors, reverbs, tape simulations, effects, channel strips, and more. Their sound quality is remarkable—UA sets something of a gold standard for modeled effects. However, only a handful of plug-ins is included with an Apollo purchase, and a complete collection would cost many thousands of dollars. (All plug-ins are available for audition as fully functional, but time-limited, demos.)

Another Apollo innovation is the Console app, a virtual mixing board that not only lets you control Apollo hardware from your desktop, but also insert UA plug-ins on input channels upstream from your DAW. With its ultra-low latency, Console can duplicate the effect of recording via hardware preamps and compressors—an impressive feat. (Console only

With its rugged metal enclosure and quality connectors, the Twin is one of the few small-format interfaces that truly seems suited to the physical demands of the job.

hosts plug-ins created specifically for the UA platform. Meanwhile, UA effects also appear as AU, VST, RTAS, and/or AAX plug-ins within your DAW alongside your other plug-ins.)

The Ins and Outs

The Twin records at 24 bits at sample rates up to 192 kHz. It has two input channels, switchable between mic, line, and instrument level, plus the option of eight more digital inputs via optical cable. There are three sets of stereo outs: main, monitor, and headphone. You enter most values via a single large knob. There's phantom power as needed.

The sound quality is… well, identical to that of the larger Apollo, since the Twin uses the same preamps and SHARC processors. To my sub-golden ears, the studio results are as good as or better than any convertors I've owned.

The difference with my mobile laptop rig is more dramatic. I'm one of those foolhardy souls who performs live on guitar via laptop, and the Twin blows away anything I've used in both sound and build quality. Mind you, I'm generally amazed that under-$200 interfaces sound as decent as they do, but the Twin delivers more depth and detail than any budget model I've tried.

It can be hard to describe exactly how one audio interface sounds better than another—it's not as if the cheaper ones lack highs or lows, or demonstrate obvious distortion. But with a better interface, there's more sense of solidity. Notes seem more definitive. There's improved dynamic range, especially when playing quietly. There can literally be a greater sense of depth, as if sounds are distributed not only between the left and right channels, but also nearer and farther on an imagined soundstage. There's just more *there* there.

Not Built to Break

Far too many mobile interfaces are—let's be blunt—cheap plastic pieces of crap. I'm embarrassed to confess how many I've destroyed through clumsy footsteps or hurried packing. (Hint: more than I can count on one hand.) And thank goodness, the Twin doesn't have one of those horrid octopus-style breakout cables (though it does require the included 12-volt external power supply). With its rugged metal enclosure and quality connectors, the Twin is one of the few small-format interfaces that truly seems suited to the physical demands of the job.

I've used the review model Twin for my last few live laptop gigs, connecting through the interface to a MacBook Pro running Apple's MainStage software, and then back out through the Twin to a Boomerang III looper en route to a pair of Fishman LoudBoxes. My tones have more impact and a greater sense of headroom—they simply feel bigger. And it's reassuring to have an interface on my pedalboard that seems less likely to disintegrate.

Almost Analog

The Analog Classic plug-in bundle included with the Twin is modest: You get legacy editions of UA's 1176 and LA-2A compressors, not the latest versions. There's an underwhelming light version of Softube's Amp Room, plus a channel strip and a reverb plug-in that are both a decade past their sell-by dates. However, the included 610-B Tube Preamp adds fine analog burn to any track—it's perfect for inserting on a Console input channel as described above.

There's not nearly enough room here to cover all the plug-ins UA sells separately, though I can't resist calling out a few addictive favorites: The EMT plates are astonishingly deep and detailed recreations of those classic hardware reverbs. The simulated tape machines—a Studer multitrack and an Ampex mastering 2-track—add warmth and character to anything you run through them. You can hear those simulated devices on the audio examples included in the online version of this review.

The Verdict

The Apollo Twin is a compact audio interface and plug-in host boasting remarkable sound quality and smartly streamlined features. Paired with a recent-model Mac, it's powerful enough to anchor a busy project studio, yet compact enough to pop into your gig bag for mobile work. The bundled plug-in collection is modest, but I'd still recommend the Twin even if came with *no* plug-ins. It earns top marks for audio quality, workmanship, and its many useful and innovative features.

PREMIER GUITAR PREMIER GEAR

CLICK HERE TO HEAR this audio interface at premierguitar.com/sep2014

RATINGS

Universal Audio Apollo Twin

$899 (dual-processor) and $699 (single-processor) street
uaudio.com.com

Sound	♥♥♥♥♥
Ease of Use	♥♥♥♥½
Build/Design	♥♥♥♥♥
Value	♥♥♥♥½

PROS Superb sound. Access to great plug-ins. Solid construction. Innovative software.

CONS Stingy bundled plug-in collection.

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DIGITECH
Bass Whammy

By Steve Cook

Just about every bassist and guitarist on the planet has regretted letting go of a particular piece of gear at one time or another, be it a vintage amp or instrument, or perhaps more commonly, a stompbox. But it's doubly painful when you let go of something rare that becomes much more costly to replace by the time you see the error of your ways.

Such has been the case for many owners of the original DigiTech Bass Whammy. Introduced to the low-end community in the '90s, the pitch-stretching pedal was a hit with a small but avid niche of players, but eventually it was discontinued and fell into pawnshop purgatory. But lately, there's been a resurgence of interest in the original, and as usually happens with popular rare gear, the resurgence brought a marked inflation in price, too. Luckily, DigiTech recently rolled out the next-generation Bass Whammy, which builds on the beloved quirks of the original while also offering more modern options for those who like the concept but prefer sleeker execution—and this one won't set you back a small fortune, either.

Big Box, Big Upgrades

There's no way around the fact that the Bass Whammy is larger than most pedals—especially in light of the recent trend toward ultra-miniaturization—but there's also a lot going on inside. The layout is quite easy to navigate. Like other Whammys, there's a knob for dialing in the desired whammy or harmony selection, but there's also a MIDI input option. A mini toggle above the selection dial lets you choose between classic and chords settings. Classic mode is monophonic and yields the lovably glitchy tones of the original Bass Whammy, whereas chords mode has a new polyphonic algorithm that tracks better, even when you're playing more than one note.

The latest Bass Whammy's range of harmony and whammy effects has been expanded, too. There are nine bending possibilities, from two octaves up to an octave down. The original's large, rectangular plastic footswitch has been replaced with a heavy-duty metal footswitch, and the separate wet and dry outputs from the early version have been replaced with a single output. Unfortunately, the only way to switch between effects is the settings dial, so using the pedal to its fullest potential requires bending down a lot. Being able to scroll through the settings with a footswitch would be a welcome addition.

Lo-Fi *or* Sophisticated

I tested the new Bass Whammy with a Fender Precision 4-string driving an Eden Metro with ported 2x10s. If you haven't plugged into a Whammy before, playing one for the first time can be a little like your first trip to an amusement park: You're overwhelmed by sensory overload, so you run from ride to ride and try as many as possible as fast as possible. Once that initial rush of power is over, though, you find that the unique possibilities—whether employed subtly or in an over-the-top way—can easily inspire new riffs and song ideas, or open up new ways to transform stale tunes or bass lines.

Both the harmony and whammy sides of the pedal possess great modulations ranging from subtle to full-speed adventurous. But I started out on the whammy side, going through all the available pitch-bending options. The two-octave-up setting is the extreme end of the spectrum and doesn't track

especially well, so I personally would use this setting sparingly. Being able to pitch-bend down in variable increments such as 4ths and 5ths is a useful feature. And I dug the dive-bomb effect, which can make your bass sounds like it's a record slowing down to a halt.

For bassist with a thing for warping harmonies, the Whammy's harmony side can yield a lot of intervallic fun. For example, with the pedal toe-down on the 5th-up/6th-up setting, a 5th is added on top of the root note. Move the expression pedal up, and a 6th is added to the root—and you can gliss up or down within the chord, keeping the root intact. And because the root stays in place on every one of the harmony settings, there are almost infinite possibilities. And you could have a ton of fun pairing the Bass Whammy with a looper to emulate keyboard- and guitar-like parts.

Indie-rockers and more experimentally minded players will appreciate that DigiTech included the monophonic classic mode. For these guys, the digital artifacts and somewhat glitchy sound of the original Bass Whammy weren't a problem—they were part of its charm. Meanwhile, those with more traditional tastes will probably leave the pedal in chords mode, because its algorithm is much more accurate, and the modulated tones sound more robust and natural in this mode.

The Verdict

The Bass Whammy has always been a fun pedal that also happens to offer a lot of possibilities for bassists to push their creativity into uncharted territory. And thanks to the latest version's classic and chords modes, the potential is even greater now. It's got the weirdness factor that cult collectors crave, but it's also compelling for those with more particular hi-fi sensibilities. The dive-bomb and chorus-type effects are nice bonuses, too. Best of all, the new incarnation won't break the bank *and* it has more features than the original version.

CLICK HERE TO WATCH this pedal at premierguitar.com/sep2014

RATINGS

DigiTech Bass Whammy

$199 street
digitech.com

Tones	
Ease of Use	
Build/Design	
Value	

PROS Original Bass Whammy quirks are there, if you want them. Great polyphonic responsiveness for more straight-laced players.

CONS Slight signal alteration in whammy mode, even with the pedal in off position. Can't change effects via footswitches.

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PREMIER GEAR

BRADFORD
Sterling

By Ted Drozdowski

The only thing better than the sound of a classic tube amp moving air is the sound of two classic tube amps working together. Combine them in a single head and you're *really* onto something. This is the neat trick behind the Bradford Sterling, a British-inspired, 18-watt, EL84-powered, two-headed monster from Nashville boutique builder Bradford Shoemaker.

Two Pounds Sterling

The Sterling's independent dual channels are called Dartford and London in honor of their respective Vox and Marshall inspirations. Both channels produce crisp, driving, and heady tones. Using Shoemaker's included A/B/Y switcher, you can drive each channel separately, or summon both simultaneously, blending voices associated with an AC-30 and a plexi into a single sonorous growl.

Shoemaker likens this combination effect to jumped channels on a plexi head—a trick that propelled some of the beefiest tones of the '60s and '70s, including those of Jimi Hendrix and Steve Marriott. Here, however, the channels work together to create one unique voice.

The Sterling is a cool-looking amp. The dovetailed cab and head enclosures are handbuilt from Appalachian cherry wood, with a nod to your great-granny's floor radio via ornate, deco-influenced front panels. When the head is powered up, a big B lights up on the front—a touch that might be over-the-top if the whole package wasn't so classy and well crafted.

Under The Cherry Hood

The Sterling's interior workmanship is also exquisite. Shoemaker neatly hand-wires the

entire circuit, which gives the innards a sleek industrial charm. Like its 36-watt big sister, the Nobility, the Sterling is built around EL84 tubes, 12AX7 preamp tubes, and an EZ81 rectifier (though Shoemaker will pop in two 6L6s instead of the EL84s if customers desire). There's a nice, quiet effect loop and switchable impedance. The master volume is the post-phase inverter type—another plexi nod. And thanks in part to cathode bias, the Sterling has natural compression that keeps tones tight and spanky, enabling effects to work at their extremes without making mud. The custom-wound transformers come from Chicago's Magnetic Components, and the speaker is a 30-watt Weber Legacy series Silver Bell. It barks like a rottweiler.

The Road Test

The Dartford preamp channel sings in crisp, bright tones with superb articulation that graduates to rich overdrive as it moves toward 10. The London channel is based on a classic JTM preamp circuit, with tighter lows and a clearer midrange voice. And while the actual drive from Dartford to London takes about an hour, the trip here requires only a foot tap.

I started testing with a '72 Stratocaster rigged with a trio of Seymour Duncan Alnico II APS pickups. The treble-cut control helped soften the barbed snap of the Strat's bridge pickup. The control has much range—at maximum, it sounded like I was playing a jazz hollowbody with flatwounds. In the middle you'll find a world of bristling, clear, and nasty classic rock tones of exceptional immediacy, thanks to the Sterling's super-fast response. Compared to the Dartford channel, the London responds sweetly to single-coils with warm, burnished lows and mids.

The real fun starts when you blend the channels. If I'd been walked blindfolded into the room, I'd have sworn a vintage Marshall and Vox were battling it out. Because the preamp channels are independent, you can emphasize one over the other. Pushing the Dartford a click-and-a-half above the London, for example, produces a fantastic fusion of the fat lows and midrange rush of a plexi with the sparkling highs of a Vox. The combination is simultaneously evil and gorgeous.

Humbuckers tease different flavors from both channels. Each pickup setting absolutely *kicked*, with both low-end push and high-end clarity. I was delighted by how effectively the channels paired to create glorious harmonic architecture. A little extra Dartford voice brought out the best in the Gibson—and the amp.

The Verdict

By boutique standards, the price for a matched Sterling head and 1x12 open-back cabinet is reasonable, especially since you get two classic tone-generators *and* one of the coolest looking amps on the scene. It covers all the crucial bases for players who worship at the temple of British rock and blues, but it's the extras that make it truly special. The low and midrange tone-sculpting power are invaluable when switching between guitars, and the straightforward channel switching/blending might replace several pedals on your board. The Sterling's combination of aesthetics, tones, and flexibility is nothing short of spectacular.

CLICK HERE TO HEAR this amp at premierguitar.com/sep2014

RATINGS

Bradford Sterling

$1,895 (head) street, 1x12 cabinet (as shown) $600 street
bradfordamps.net

Tones	
Ease of Use	
Build/Design	
Value	

PROS Excellent classic British sounds. Independent channels and channel blending. Highly responsive. Superb craftsmanship. Cool design.

CONS No reverb.

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PREMIER GEAR

STOMP UNDER FOOT
Hellephant

By Charles Saufley

It's not for nothing that there are so many Fuzz Face-inspired stompboxes on this Earth. Obviously, certain guitar legends made the Fuzz Face a cornerstone of their sound. But star associations aside, the Fuzz Face is a near-perfect stompbox. It's simple, musical, responsive, and—from a pedal-builder's perspective—a marvelous blank slate for tinkering and experimentation.

Stomp Under Foot's Matt Pasquerella knows a thing or two about tweaking classics. His many variations on the Big Muff circuit are renowned among that pedal's sizable cult. But his take on the silicon Fuzz Face, the Hellephant, suggests he also has the ears (and feel) for what makes a Fuzz Face sound great too. And in my time with the Hellephant, I found it to be a surprisingly expansive-sounding fuzz: as dynamic and singing as a good Fuzz Face, with a touch of extra aggression and range that make it exceptionally flexible.

Deceptively Simple

Like any Fuzz Face-inspired pedal worth a hill of beans, the Hellephant is dead simple—just a volume knob and a fuzz control. There's not much more to see if you crack open the back cover, either. The whole of the clean and ordered circuit is wired on a board not much bigger than a couple of postage stamps, and you can clearly see the spindly, NOS metal-can 2N222A transistors at the heart of the works. About the only component on the board that would look out of place in a vintage Fuzz Face is the voltage bias trim pot, which you can use to shape the gain and voice of the pedal.

Sweet, Singing Pachyderm Circus

If there's any complaint that players commonly level against the Fuzz Face, it's that, while it's very responsive to changes in guitar volume, there's often not a lot of range in the pedal's controls themselves. In fact, many vintage Fuzz Face players keep both controls at or near maximum and let their guitar volume do the rest of the work. The Hellephant, however, breaks from that mold to a significant degree—offering much more control without sacrificing any sensitivity to guitar volume or tone attenuation.

Because the Hellephant is hotter on the top end than your average Fuzz Face-style pedal, you get the most room to roam when the volume is in the lower half of its range. With the fuzz all the way up, unity gain comes with the volume knob at around 9 o'clock. This proved one of my favorite settings—and one of the best for exploring the way the pedal interacts with your guitar's controls. At this level, just a little volume attenuation makes first-position and power chords sound dazzlingly charged and articulate, with just a touch of very tasty, organic compression. (The chord arpeggios from the Beatles' "Rain" sounded especially radiant and powerful using this approach.) The same guitar and pedal settings lend extra breadth, presence, and sustain to lead tones without adding a lot of distortion, and neck pickups in particular take on a smoky but civilized singing quality that's perfect for languid blues phrases.

Even at low pedal volume, maxing the fuzz and opening up the guitar generates the kind of vocal-sounding, super-responsive fuzz tones that everyone from Hendrix and Floyd devotees to modern stoner-rock players savor. Bridge-pickup sounds are screaming without being harsh, while neck pickups bellow with tones that are simultaneously fat and harmonically complex.

Setting the Hellephant's controls around noon yields yet another spectrum of fuzz colors. Power chords take on a grinding, growling sonority, while lead tones both sting and sing. And if you set the fuzz to about 3 o'clock, the Hellephant generates the buzzing, circa-'66 fuzz that garage-psych lunatics dream of.

The Hellephant's high-gain orientation does emphasize some silicon brashness at near-maximum volume and fuzz settings—especially with single-coils. And you will hear a little scratchiness in the break up when the guitar volume and tone are maxed, too. Thankfully, it takes just a tiny attenuation from each to smooth things out. And in the event that you find the Hellephant just a little too excitable in general, the internal voltage-bias trimpot enables fine tuning that can better match the pedal to your guitar or amp. The bias pot is surprisingly sensitive and effective, so you'll want to experiment in small increments. This hidden feature is one of the Hellephant's real assets—an important key to its multihued versatility.

The Verdict

The flexibility of a Fuzz Face-style pedal is always a revelation to the uninitiated, who may equate knob count with tone options. The Hellephant takes that flexibility a satisfying step further with a circuit that's as responsive to its own knobs as it is to your guitar's. The extra available gain can sometimes sound a little harsh if controls are all wide open. But there is *so* much range in the volume and fuzz controls that many players will find little need to explore these extremes. The Hellephant's low-gain overdrive sounds are superb for chords and leads, but it will just as happily buzz like an acid-addled bee, grind out rich, Stooges-worthy power chords, or sing like a classic Hendrix or Gilmour lead. It's also very reasonably priced for a fuzz that's well made and offers sonic potential beyond a simple Fuzz Face clone.

PREMIER GUITAR PREMIER GEAR

CLICK HERE TO WATCH this pedal at premierguitar.com/sep2014

RATINGS

Stomp Under Foot Hellephant

$155 street
stompunderfoot.com

Tones	4.5
Ease of Use	5
Build/Design	4.5
Value	4

PROS Abundant fuzz flavors. Lots of range in volume and fuzz knobs. Responsive to playing dynamics and your guitar's controls. Useful voltage trimpot.

CONS Extra available gain can make hottest fuzz settings a bit harsh.

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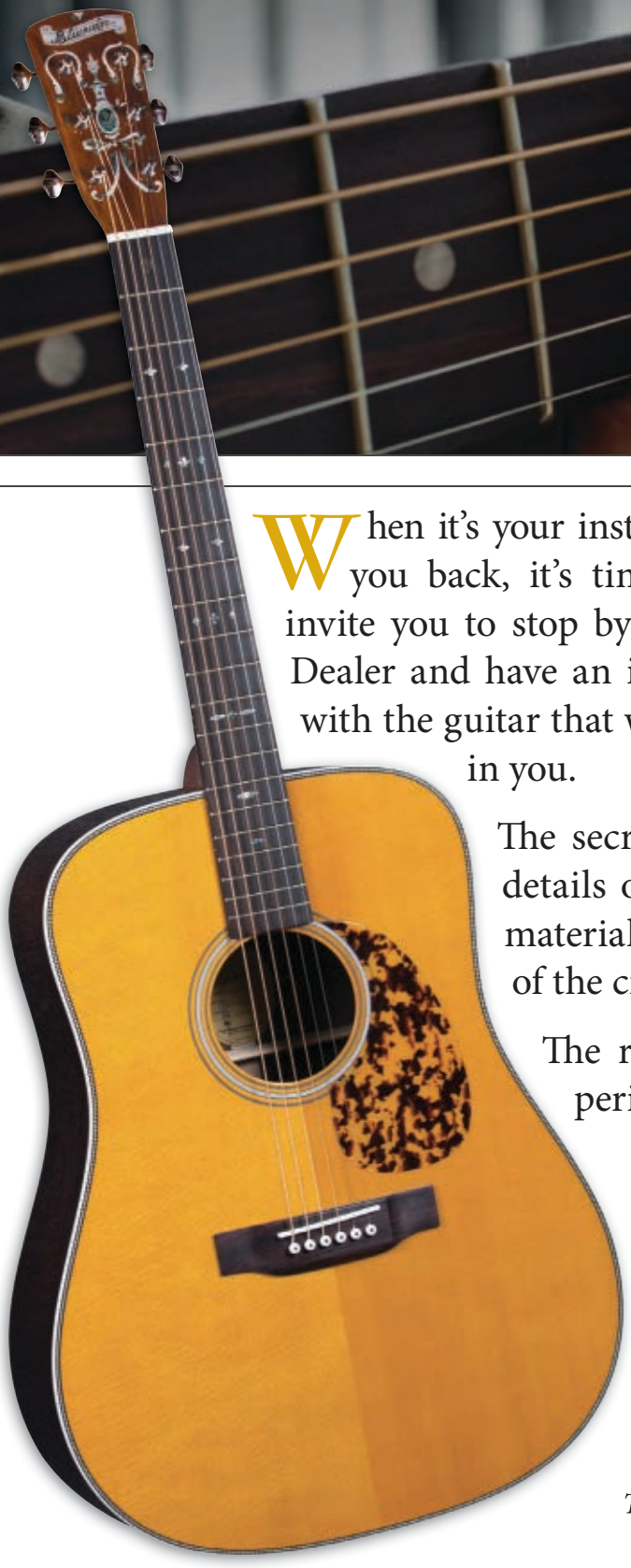

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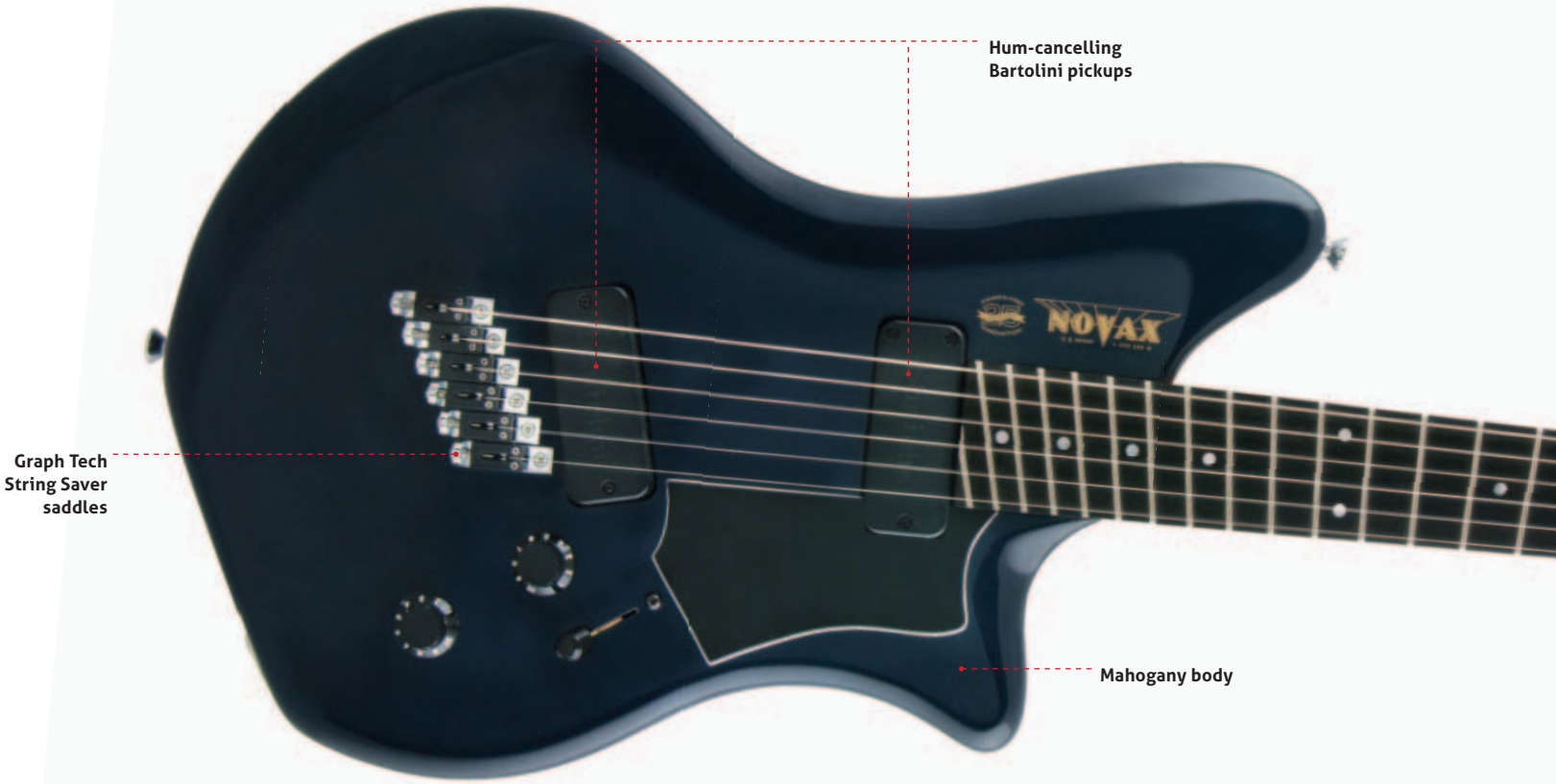
NOVAX 25TH ANNIVERSARY SWEET ANNIE

By Allen Whitman

The history of guitar is defined by reinvention, and when it comes to getting the geometry of 6-string sonics right, Ralph Novak's fanned-fret instruments are some of the most imaginative guitar evolutions of the last three decades.

To the uninitiated, fanned-fret instruments can look eccentric, but there's a method to what may look like madness: Each string's bridge saddle is staggered to conform to measurements optimized for its string. The objective is to get uniform harmonic content across the fretboard and the fullest frequency range from each note. The benefits aren't merely sonic—varying string lengths provide consistent tension across each string. For some players the system provides superior feel and intonation.

This year the Novax Fanned-Fret solidbody is 25 years old—an occasion Novak is commemorating with the release of 25 handbuilt anniversary versions of the innovative instrument. In the time I spent with this guitar—which included sharing it with some great players and guitar



The objective is to get uniform harmonic content across the fretboard and the fullest possible frequency range that can be generated from each note.

experts—it was hard to not be struck by what a versatile instrument it is.

Feast of Design

The 25th Anniversary edition Novax is available in two U.S.-made models: the Sassy Annie and our review guitar, the Sweet Annie. Sweet Annie has a mahogany body, maple neck, ebony fretboard, and two hum-cancelling Bartolini soapbar pickups, while Sassy Annie has a swamp-ash body and a choice of three Lollar or Bartolini single-coils.

Thoughtful design is evident everywhere on our test Annie. The tuning machines are situated for straight string pull past the bone nut—a fact that should decrease tuning issues due to reduced friction. The electronics cavities are shielded with copper foil and leave plenty of room for modifications. And the 500k pots, 5-way switch, and .02µF capacitor are all high quality—although the volume pot's taper felt like it could be a bit more nuanced.

Surprisingly Easy to Know

Unsure about how effectively muscle memory would serve me on the unfamiliar Novax fretboard, I made a point of not looking down as I played. I was surprised how quickly my fingers found their mark, and it wasn't long before I felt almost totally at home. It may seem wildly counterintuitive, but ultimately the fanned frets felt easier for me to play than a traditional guitar.

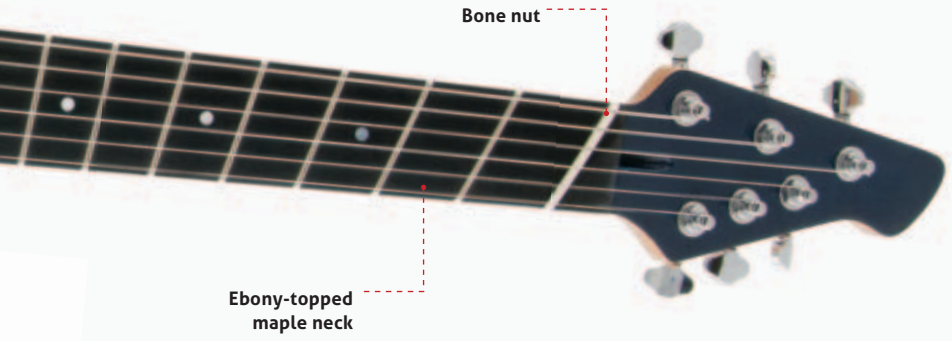
Typically, I play a fairly ordinary Stratocaster through a '67 Fender Super Reverb. Comparatively, the Novax is louder at the same amp settings, but also much clearer. And though the Annie sounds big, it's also very controllable and responsive to playing dynamics. Bang on it, and the attack is loud and immediate. Play gently, and notes have a blooming quality. It is also remarkably noise free. The detail and dynamic sensitivity really reward articulation and precision. And the even tone response and output across the fretboard highlights the nuance and detail that come from a sensitive touch. A cool secondary effect of all this clarity is that it makes pedals feel more detailed and full of range, too.

I work in a busy guitar shop (Gary Brawer Guitar & Bass Repair in San Francisco) that sees a lot of traffic from high-profile players. It was fascinating to hear impressions as I gave a few of them a chance to play the Annie. Jerry Harrison (formerly of Talking Heads) enjoyed the ease of playing around the middle of the neck, though he noted that barre chords were awkward at first. Jim Martin (formerly of Faith No More) plugged in Sweet Annie and fell into a fifteen minute, dreamlike flamenco reverie. Gary Brawer, who counts Joe Satriani and Metallica among his clients, remarked on the quality of the fretwork and how effectively the .110" x .057" frets work with the setup. (One interesting aside: The popular PLEK computerized fret-mill system cannot be used with a fanned-fret instrument like the Novax.)

The Verdict

If you're looking for the slightly out-of-control, teetering-on-feedback sound of a Les Paul through a 50-watt Marshall half-stack, an instrument like the Sweet Annie is probably not your first choice. It's controlled and precise. It rewards a technical touch. That said, it's not so civilized that it sounds sterile or innocuous. It's sonically robust and loud. Most surprising, it's truly easy to play after a short get-to-know-you period. Indeed, it's the kind of guitar I could play all night.

CLICK HERE TO HEAR this guitar at premierguitar.com/sep2014



RATINGS

Novax 25th Anniversary Sweet Annie

$2,500 street
novaxguitars.com

Tones	4½
Playability	4½
Build/Design	5
Value	3½

PROS Excellent playability. Big, clear tones. Lightweight. Impressively accurate intonation.

CONS Could be more aesthetically pleasing.

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VISUAL SOUND V3 H2O

By Joe Charupakorn

The guys at Visual Sound have built some pretty cool dual-mode pedals in their time, the most famous being the Jekyll & Hyde Overdrive/Distortion and Route 66 Overdrive/Compressor. The success of these designs is due to practicality, not gimmickry—they co-package cool-sounding, commonly used effects to save gigging players headaches and hassle. On the surface, the new V3 H2O Echo/Chorus might seem a little less practical than an overdrive/compressor, but the beauty of the third version of the H2O is that the two effects work together in a cohesive manner that makes the echo/chorus effect feel like a natural—even essential—addition to your effect array.

A New Form for Sonic Evolution

Visual Sound has scrapped the old shield-shaped enclosure used for the first incarnation of the H2O in favor of a roughly 5" x 4.5" x 2" rectangular housing that's about as wide as two conventional Boss pedals. And because the V3 has top-mounted jacks, it actually takes up *less* space than two Bosses wired together.

The control set is a fairly busy affair, though it's mostly very intuitive and easy to navigate. The six topmost knobs are familiar enough: The chorus section has speed, width, and depth knobs, while the delay section has delay, repeats, and level knobs, as well as a short/long switch for toggling between 10–225 ms or 225–450 ms delay ranges. The newest additions are two smaller knobs—tone and "chor-vib," the latter of which lets you select either chorus (a mix of your dry and wet signal) or vibrato (the wet signal exclusively)—or a blend of the two. There's also a new switch for choosing three levels of modulation intensity, and a detune switch that adds a crazed pitch-shifting texture to the modulations. Underneath the hood you'll find two on/off switches for each effect's "Pure Tone" signal buffer. Visual Sound recommends leaving these switches in the on position, but if you prefer true-bypass, the option is there.

Gear freaks love the ability to control every aspect of their rig, and the H2O's separate in and out jacks for each effect means you can route your signal in any of the same configurations as you would with individual pedals: Put chorus before delay, delay before chorus—or patch pedals in between the two.

Captivatingly Delicious

To test the V3, I used an Ernie Ball Music Man Silhouette and a Fender Stratocaster, both running through a Mesa/Boogie Lonestar Special, with a Fulltone GT-500 pedal out front for a little dirt. I started with chorus alone, tone all the way up, speed and depth just shy of noon, detune off, intensity high, and depth jacked. The result was a lush, '80s-flavored chorus—the most immediate association that came to mind was Crowded House's hit "Don't Dream It's Over." The sound was discernibly rich and warm, excellent for suspended chord voicings and arpeggiated textures.

Increasing the speed and width, backing the depth back to noon, and moving intensity to the middle setting generated a thick Leslie-type sound that was fun for comping quartal chords. And when I engaged the distortion pedal, I got a groovy Scofield-type tone for single-note runs—it was very trippy and cool to hear the continual warble on a sustained and screaming bend. Moving the speed and depth back a little, and turning the tone knob fully counterclockwise delivered a much less subtle

and peak-heavy jazz sound similar to the clean sounds popularized by Pat Metheny and Mike Stern.

Meanwhile, the basic voice of the digital delay section is a very nice blend of warmth and digital clarity. Setting the short/long switch to short delivered great slapback tones, while flicking it to long enabled me to tap into everything from cascading Edge-type repeats to a haunting, subtle shimmer for chords—a use that was effective and rich even at lower levels.

Two-in-One Equals Twice the Fun

As simple, conventional delay and chorus pedals, the two sections of V3 H2O excel—especially when used together. I had a blast engaging the chorus and delay for arena-rock-style solos, but there are also a ton of out-of-this-world sounds available by exploring extreme settings and uncommon combinations of the effects.

With the chorus' width cranked, intensity high, detune on, and chor-vib maxed for vibrato only, I got wacky, surfing-on-acid effects for chords, and Vai-like sounds for single note solos. Cranking the delay pedal's repeats induces self-oscillation and sounds like a security alarm gone haywire. Combining the textures created sonic chaos that wasn't just fun—it led to genuinely creative moments of unexpected inspiration.

The Verdict

Visual Sound consistently turns out quality pedals at very reasonable prices, and at under 200 bucks, the V3 H20 is an impressive value for two effects that play so well together. Independently, the rich sounds from the delay and chorus/vibrato sections rival or best a lot of units in the $100–$200 range, and the fact that you get both in a compact package is the icing on a delicious cake. Given the thoughtful design, vast sonic possibilities, and the cool way in which these effects work together, the V3 H20 is a very impressive bargain.

PG PREMIER Guitar PREMIER GEAR

CLICK HERE TO WATCH this pedal at premierguitar.com/sep2014

RATINGS

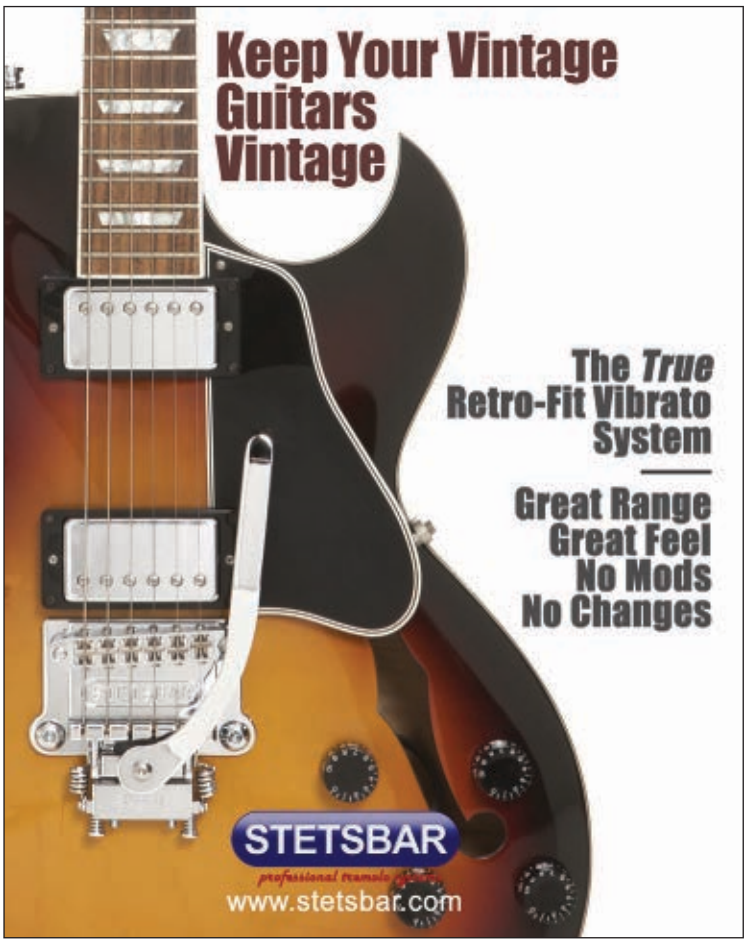
Visual Sound V3 H2O

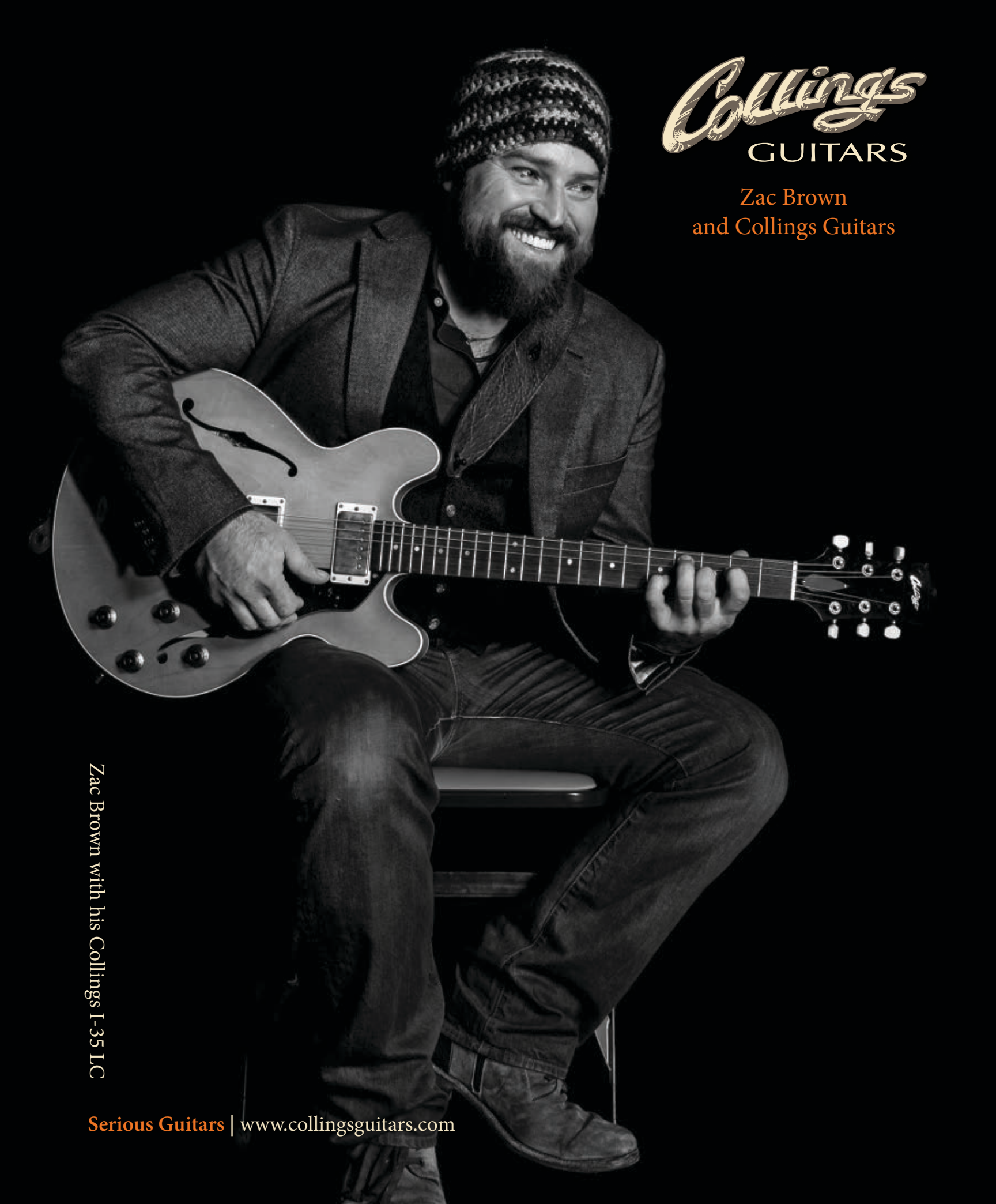
$179 street
visualsound.net

Tones	
Ease of Use	
Build/Design	
Value	

PROS Great sound quality. Formidable sonic possibilities at a great price.

CONS No tap tempo or stereo outputs for the delay.

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PEERLESS
Retromatic B2

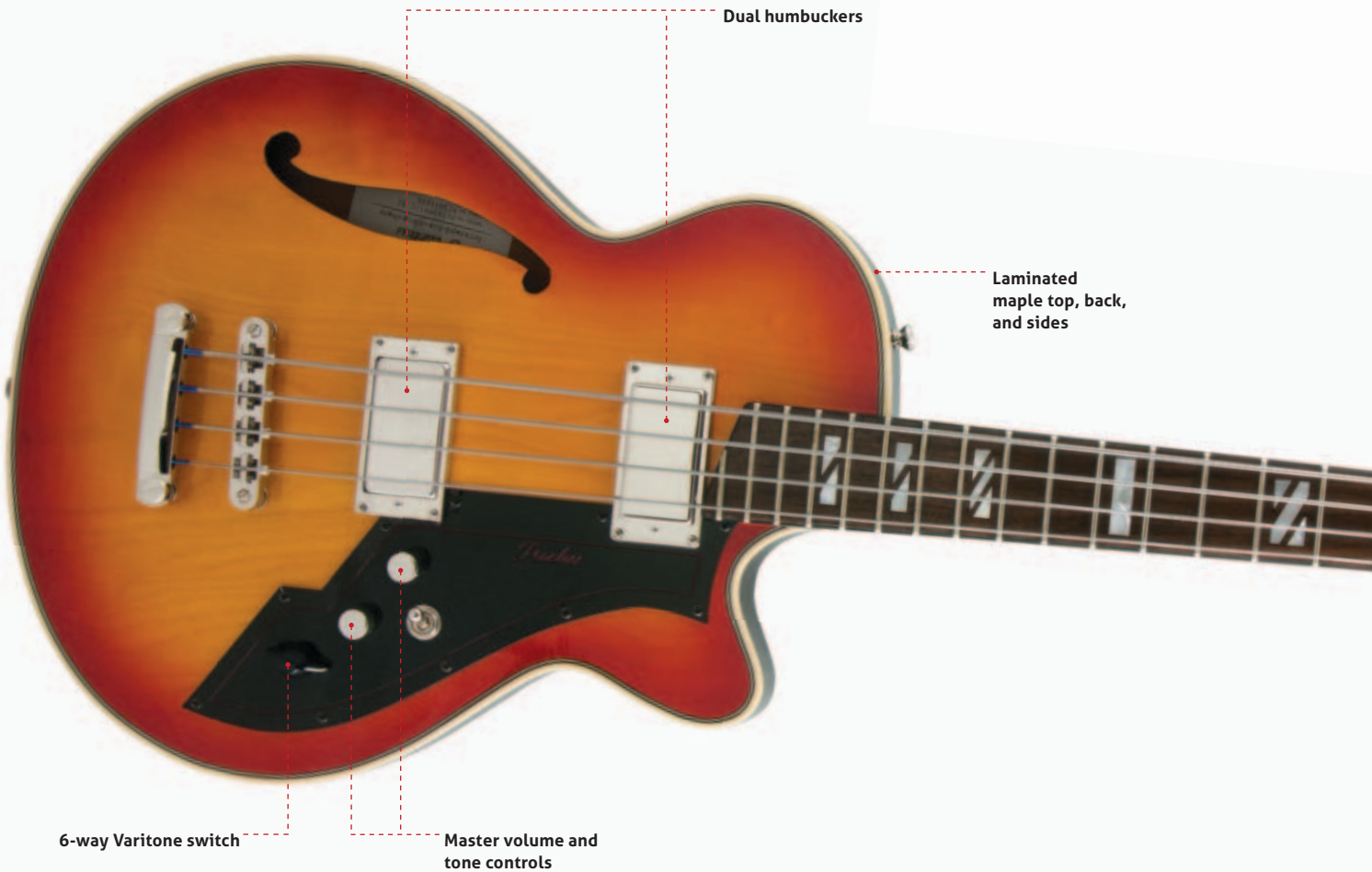
By Steve Cook

Peerless Guitars may be a new name to some, but chances are that many of you have held one of their guitars at one time or another. They've been crafting instruments for other companies for over 40 years. Somewhat recently, the company branched out and began offering instruments under the Peerless name. The Peerless line includes an impressive array of guitars and basses—mostly hollow or semi-hollow—and their latest bass offering keeps the vintage vibe alive. The Retromatic B2 we checked out not only brings out the nostalgia—it brings it with a bit more to say.

Don't B2 Hollow

For me, one of the coolest parts of reviewing gear is opening an instrument's case for the first time. When I initially popped the latches on the molded case housing the B2, I found an axe with all the elegance of a '40s Hollywood starlet. The burst finish was flawless, and the white/black/white triple binding around the single-cutaway body adds a stylish touch of class. From the stepped headstock to the stop tailpiece, the bass looks like a classic.

Peerless has a Retromatic guitar line as well, and the B2 shares the same body dimensions as it's 6-string brother. I like



this because the bass isn't too bulky and makes the B2's thinline, chambered body a joy to hold. The scale length is 34", and when strapped up, the neck *does* level off a little. This would not be a big deal normally, but the bass hangs slightly more left than I prefer, which makes the neck seem a couple of inches longer than it really is.

The B2 sports some interesting electronics under the triple-ply etched pickguard. It's equipped with a pair of humbuckers designed by Matt Gleeson of Monty's Guitars in London. Running the show are two mini knobs for volume and tone, a 3-way pickup-selector toggle, and a chicken-head Varitone knob. The Varitone has a neutral setting and five presets with varying resistance for further EQ options.

The body consists of a laminated flame-maple top with back and sides also made of maple laminate. The neck is—you guessed it—maple, and it's topped with an Indian rosewood fretboard dressed with block mother-of-pearl inlays. The neck also features black binding and a bone nut.

The B2 arrived from the factory with flatwound strings, and it was set up perfectly. There wasn't a dead spot or weak area on the neck. Unplugged, the B2 has a nice tone and excellent sustain.

Another plus is the B2's rock-solid construction. Some hollowbody basses can feel flimsy or toy-like. The Retromatic B2 is one of the most rugged-feeling semi-hollowbodies I've had my hands on in recent memory, and it seemed ready to take about anything I could throw its way. At 8 pounds, it is a little heavier than many in its class, but that's a welcome trait because a little more mass encourages one to dig in when necessary.

Not Just a Pretty Bass

With the B2 satisfying my appreciation for all things vintage in the looks department, I was ready to hear if the sound was on par. I paired the B2 with an Aguilar Tone Hammer 350 and matching SL 112 cabinet. I did the first thing we all do when we get a new bass: randomly cycle through various pickup combinations and tone settings. The range on this bass is impressive.

The tried-and-true setting of diming the volume and tone with both pickups engaged (and the 6-way Varitone set to neutral) was great. The woody tone had sustain for days, and for a bass strung with flatwounds, that's refreshing. The soloed neck pickup is more aggressive, and the bridge pickup is tuned for the articulate fingerstyle player.

Things start to get interesting when you engage the 6-way Varitone switch. The B2 responded to everything I threw at it from rock to blues to jazz to vintage country. The selector does an exceptional job at moving the tonal plane as you scroll. Do you need a big, round, and truly vintage hollowbody tone? It's in there. Do you need something brasher that you'll play with a pick? It's in there as well. With the chambered body, you can achieve not only a wide range of hollowbody tones, but get close to a solidbody tone as well.

The B2's sonic range makes the bass a great option for the studio. In recording situations, some basses just don't sit very well in the mix. With the B2, a rotary switch change and different pickup selection may save the day for your session without your having to run out and grab a different bass.

The Verdict

The Retromatic B2 is a well-constructed instrument that possesses the lethal combination of sounding and looking great. This bass will allow you to achieve vintage tones at a fraction of vintage prices, and with its modern build and design, the B2 will most likely last you a long time. No, this style of bass won't be the first choice for all players. But whether you're in the market for a second bass to add multiple layers to your range or a non-traditional axe that really is versatile enough to serve as a primary, the Retromatic B2 is definitely worth a look.

CLICK HERE TO WATCH this bass at premierguitar.com/sep2014

RATINGS

Peerless Guitars Retromatic B2

$1,599 street
peerlessguitars.eu

Tones	4.5
Playability	4
Build/Design	4.5
Value	4

PROS Deep tonal possibilities, warm and wonderful vintage tones.

CONS Won't be a first choice for solid-body loyalists. Strapped up, the bass tends to hang slightly left, making the neck feel longer than it really is.

Question & Obsession

Fall beckons and so does that yearn for the road—that last chance to soak up the summer. Nita Strauss, who just replaced Orianthi in Alice Cooper's touring band, joins us in setting our stereos for overdrive.

Q: What's your hit-the-road-with-the-windows-down song?

Nita Strauss
Guest Picker

A: I have so many—I love driving with the top down listening to music! I'm going with the first one that popped into my head, and that's "Rising Force" by Yngwie Malmsteen. That song always puts me in a great mood and makes me want to drive fast!

Current obsession:
Steve Hunter, *The Manhattan Blues Project*. Steve's playing on this album is subtle in some places and dark and gritty in others, but always soulful, honest, and dynamic. I always get inspired listening to it! The icing on the cake is the guest appearances—totally mind-blowing.

Andy Ellis
Senior Editor

A: Eddie Rabbitt's 1980 crossover country hit "Drivin' My Life Away" is always in heavy rotation at home or on the road. Larry Byrom's gently compressed electric guitar lines are simply timeless ... go listen.

Current obsession:
Lap steel! When it comes to recording a solo, instead of attempting a barrage of guitar licks, I'd rather coax a few fat, searing tones from a steel—preferably through a small amp cranked to 11.

*Check out our Facebook page at **facebook.com/premierguitar** to comment on our question of the month for your chance to be our featured Reader of the Month in* Premier Guitar

Tessa Jeffers

Managing Editor

A: "Ramble On" is one of my anthems for tires hitting pavement. I like the chill build before Plant, Page, and Co. let the marbles out. That's what I like to do while traveling—alternate some mellow coasting with bouts of freak-out. Heck, I'll raise you the entire *Led Zeppelin II* and throw in some *IV*.

Current obsession:
Wood. Exotic tonewoods like cocobolo, Macassar ebony, and trembesi are things that make me go "mmmmmm."

Rich Osweiler

Associate Editor

A: Deep Purple's "Highway Star" screams road trip for me. But I have to remain cautious since it inspires quick and excessive acceleration, and I don't need anymore speeding tickets.

Current obsession:
Paul McCartney at Candlestick Park. I'm a hard-core Beatles fan and a longtime San Franciscan who's seen a gazillion Giants' games at the soon-to-be-torn-down 'Stick, so going with my wife to see Macca play where the band performed their last ever commercial concert in 1966 will be pretty insane. The special-guest rumor mill has us counting the days.

Jason Shadrick

Associate Editor

A: The first song that made me want to hit the open road was "La Bamba," but I was only 7 and wasn't able to totally understand the connection between music and travel. Now that I've connected the dots, Snarky Puppy's "What About Me?" is the jam.

Current obsession:
Hybrid picking. From the limitless technique of Guthrie Govan to the down-home twang of Brent Mason, it seems everything I'm listening to now is played by more than a pick.

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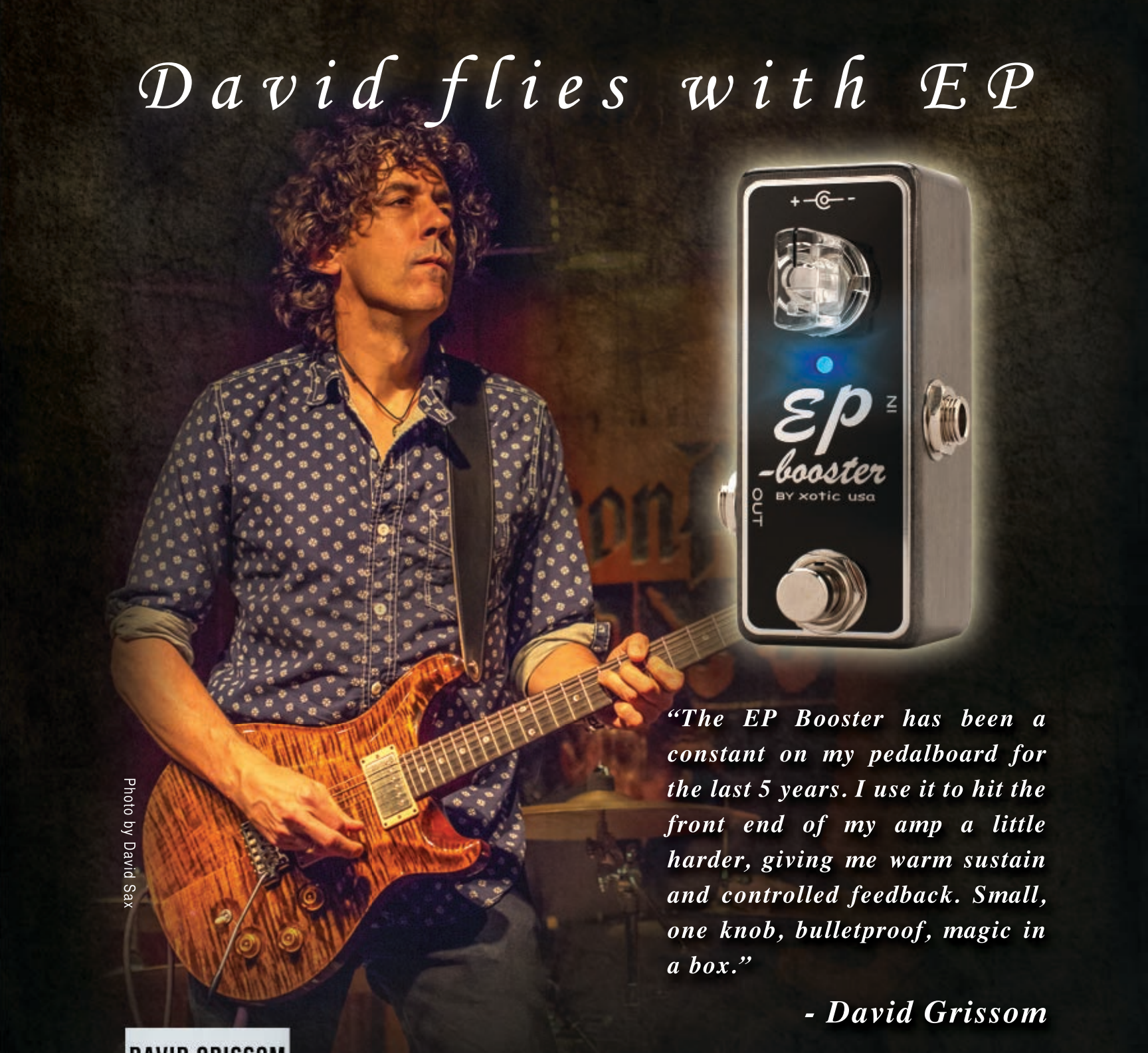

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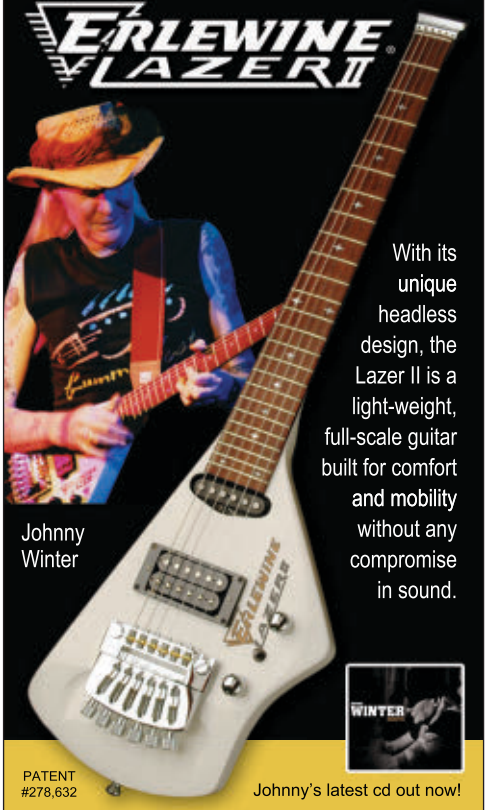

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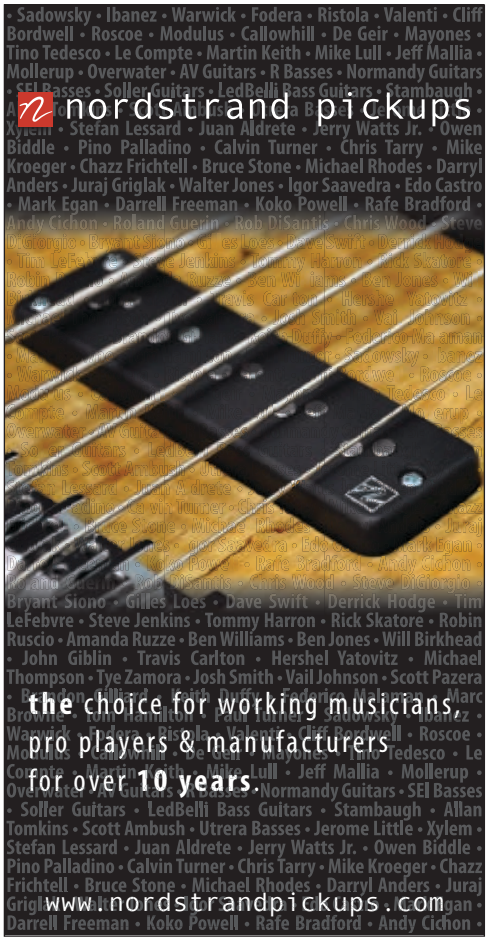

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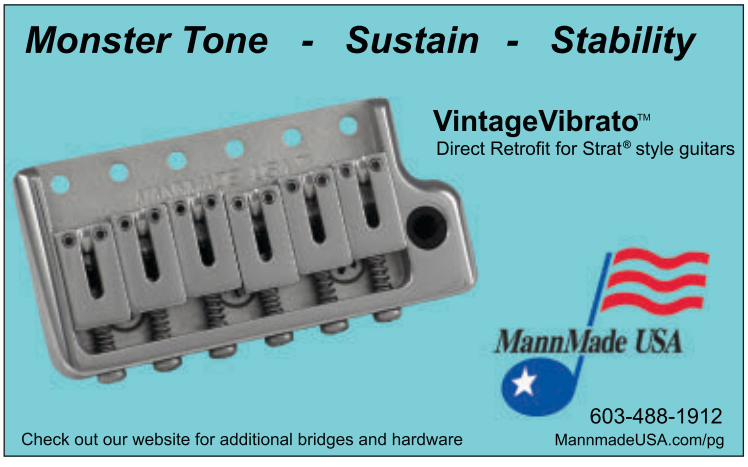
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How to Buy a Guitar

BY JOL DANTZIG

Shopping for a new guitar is one of life's greatest pleasures, but sifting through the many options to find your personal gem requires a careful, tailored approach.

Guitar makers are always trying to please someone, whether it's a customer or themselves. My preference is a true collaboration with an informed end user, but that's not possible when it comes to guitars sold in shops. Guitar brands rely upon reputation, and to a lesser degree, shop personnel. No matter how you approach it, the truth is that someone is being sold in every human interaction.

Our perceptions are received through the filter of our beliefs and associations, a fact that marketers understand all too well and one that we tend to ignore on a conscious level. Children have been shown to actually enjoy carrots when served in a McDonald's bag. Wine "experts" have been fooled into thinking white wine was a red varietal when food coloring was added. Jimmy Page's Telecaster and 12-watt combo amp sold boatloads of Les Pauls and Marshall stacks. Enjoyment is essentially a mental construct, so how can any of us know when we are being conned by our own senses?

A guitar is a complex equation because it's a tool that performs a multitude of tasks with only a few basic things set in stone. It must stay in tune, intonate well up and down the fretboard, play easily enough, and produce a sound that is pleasing to the owner's ear. Another requirement is that a guitar has to look right, and *that's* where things can get tricky. A screwdriver or a chainsaw are simple in comparison. Even though there is brand loyalty in the chainsaw world, I doubt that there are posing mirrors at Husqvarna dealers.

If you're guitar shopping in person, let's take a look at the sound part of the equation. Taking a test drive with a new instrument at a dealership can be difficult, especially with electric guitars. You're at the mercy of the shop's acoustics, background noise, and amp selection. Unless you have brought a familiar baseline guitar with you for comparison, it is difficult to understand what you're hearing.

Back in the days of stereo shops, it was a tactic of some speaker manufacturers to build more efficient products, so as to have a leg up on the competition in a side-by-side comparison. The ear interprets louder as *fuller*, and more efficient meant a louder speaker. And because the human brain perceives more volume as better up to a point, the same thinking found its way into the guitar and pickup game, too. Don't be fooled by volume changes. Pay attention to the way a guitar is set up, because pickup height also affects volume.

It's not easy to explore subtlety in a shop environment, but that's exactly what you should do. A lot has been said about listening to the unplugged sound of an electric, and I'd also recommend it. But remember this: Although acoustic volume is somewhat important, it's the *tonality* of the sound you should be listening for.

How much of the guitar is coming through? Can you hear the wood, or are you hearing a lot of string energy being reflected? Once you identify what the guitar is giving you off your hands, check to see if that's what the pickups are delivering. A great pickup can help a guitar find its voice, but the wrong match can bury a guitar's intrinsic tone. Believe it or not, I like to do this with eyes closed with my full concentration just on the sound, vibration, and the response to my hands. It's a worthwhile exercise to practice this with the guitars you already own.

Like anything else, it takes time and effort to truly hear your instrument and identify the components and reasons you like or dislike it. Don't just repeat the things you always play. Try to let the guitar's sound and feel lead you. Is it taking you to a new and interesting place or is it just another version of what you already have?

If you lean on pedals to shape your sound, take that into account as well. It's easy to bring a few pedals to a store. I've personally found that a cleaner, less-colored sound works well because it's easier to add than subtract. If you find a guitar with a lot of personality on its own, that's worth considering.

Better yet, if you can borrow an instrument to evaluate at home, do that. Some shops have a no-questions-asked return policy, and I think that's a great option. It allows you to explore the nuances without the pressure and distraction of a public space.

However you go about choosing an instrument, if you prepare yourself properly—and listen honestly and openly—you can avoid buyer's remorse later. Remember this: In a blind taste test, some people can't tell the difference between chicken and steak, but that doesn't mean that steak tastes like chicken.

JOL DANTZIG *is a noted designer, builder, and player who co-founded Hamer Guitars, one of the first boutique guitar brands, in 1973. Today, as the director of Dantzig Guitar Design, he continues to help define the art of custom guitar. To learn more, visit guitardesigner.com.*

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"What Color Is Your Parachute?" and Other Stupid Questions

BY JOHN BOHLINGER

I enjoy filming review demos and Rig Rundowns for *Premier Guitar*. After the videos post online, I usually watch them to hear how I did and read the comments to see what I can improve upon. Sometimes I play poorly. Sometimes I stutter, or mispronounce words, or start sentences with a long, off-putting "um." Watching myself can be painful—my abundant faults annoy the pants off of me. But many of our faithful viewers are kind enough to keep me apprised of my shortcomings with helpful comments. I read one last night that I found particularly thought-provoking:

> *Kaz, April 23, 2014*
> *John doesn't seem like a goofball to me, but more of a creepy psycho. He seems like the type that if he didn't pick up guitar, his career would be assembling rides for a third-rate traveling carnival.*

This got me thinking: What could a creepy psycho like me do if I didn't play guitar? Before the whole twangin' and a-sangin' thing took off, I had plenty of Joe jobs. I have toiled as an orphanage worker in Tegucigalpa, Honduras; a fish slimer at King Crab Cannery in Kodiak, Alaska; a part-time faculty member at Eastern Montana College, teaching freshman comp; a pawnbroker; a dishwasher; a tree surgeon; a roofer; a very sweaty waiter; a bread-truck driver; a carpenter; a house painter; a singing telegram delivery person; and—please forgive me—a telemarketer.

Somewhere between that dark period of painter and telemarketer, my mother gave me a self-help book titled *What Color Is Your Parachute?* (I suspect she was terrified that my inevitable failure would lead me to moving my family into her garage and selling weed to pay for baby formula.) This book was to serve as a practical manual for job-hunters and career changers. There were tests to take and unflinchingly honest self-assessments to make that would guide me into a fulfilling and lucrative career. Sorry mom, I couldn't make it through two consecutive pages of that thing.

But I *did* make it through the first 300 of the 807 pages of *The Andy Warhol Diaries*, where I gleaned at least one important lesson: Art and commercialism work well together. When Warhol reigned as the most successful living contemporary artist, he continued to work doing private portraits commissioned by ego-driven art enthusiasts. Back in the '70s, if you wanted a Warhol of yourself, no problem. You'd call The Factory, book an appointment, come to his studio and pay him $25k, and he'd snap a few Polaroids and send you on your way. A few weeks later, you'd pick up your Warhol. Not only did Warhol whore himself out, he genuinely enjoyed doing it. That resonated with me. From then on my personal mantra became Will Sell Out, Make Offer. (To this day, that's what's on my business card.)

I know wildly talented musicians who lambaste sell-outs. These guys play great but rarely play out because they would never take the low-hanging commercial-fruit gigs I enjoy. (No offense intended to my future or present employers.) These musicians are convinced that playing stupid music is betraying their art and/or will undermine their creativity. Ironically, this small-minded thinking is coming from ostensibly open-minded artists.

Sometimes trying to create exactly what someone else wants—forcing yourself to produce something within the very restricting confines of a commercial format—drives you to extreme inventiveness. You're required to find what's compelling in the project, rather than starting with something that is inherently captivating. Commercial work forces you to open your mind to the beauty in the mundane, a bit like Warhol found the appeal in a Campbell's Soup can. Half of the fun of AMC's *Mad Men* is watching the mesmerizing creativity it takes to sell Heinz beans and dog food. I think I do my best work when I'm not feeling the pressure to come up with something arty and great. Two weeks ago, I recorded 15 tracks in two days for a reality TV series. It was low budget and the producer wanted a bunch of different styles and instruments (guitar, pedal steel, harmonica, banjo, and mandolin), some of which I don't play particularly well. I felt I could never pull it off. I was stressed out of my mind— pacing around my studio, pulling my hair, and wondering what other sell-out multi-instrumentalist I could slag this crap session off on.

But in a moment of clarity, my inner voice said: "Don't sweat it, Johnny boy, it's just TV. People will listen to this through tiny speakers and focus mostly on the visual. Just stay in time and in tune and pretend you are a more versatile musician than you actually are."

After that, I took some weird chances playing that I would not have taken in a more serious session. It was the sonic equivalent of drunkenly slopping a bunch of bright paint on a canvas and having the end result look like a Jackson Pollock.

I can only speculate that the whole parachute reference is about finding a career that optimizes your interest, so you garner some safety as you free-fall through this short life. What I've discovered is that you are the only security you have—or need. Jobs come and go, but if you find the joy in the job while trying to make your employers happy, you'll be alright. My parachute is the color of a shameless, happy-go-strummy sell-out.

JOHN BOHLINGER *is a Nashville musician who has led the band on NBC's* Nashville Star *and served as musical director of the* CMT Music Awards *for five years. In addition to his "Last Call" column, John recently joined* PG *as our full-time gear demo/Rig Rundown video dude.*

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